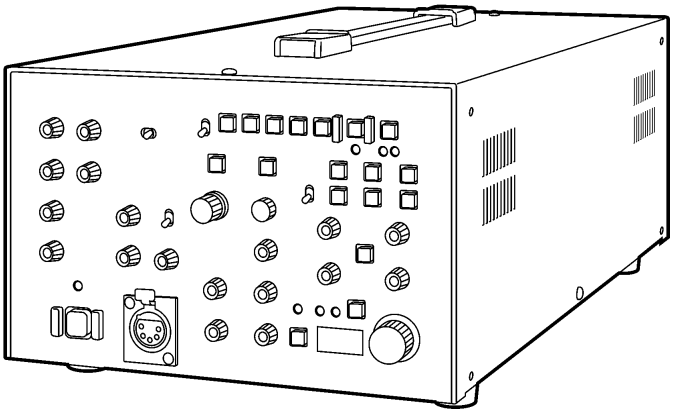
ORDER NO. BSD04070147
D25

Service Manual

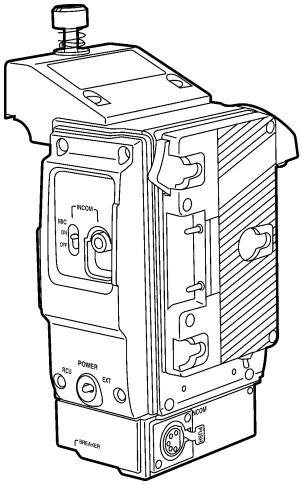
Sec. 1 *Service Information*
Sec. 2 *Disassembly Procedures & Electrical Adjustment*
Sec. 3 *Block Diagram, Parts Location Table & Schematic Diagrams*

Remote Control Unit
AJ-RC905P/EN/MC

Camera Adapter
AJ-CA905G



AJ-RC905



AJ-CA905G

Panasonic®

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

AJ-RC905P

Specifications

[GENERAL]

Power supply
Input: AC 100-240 V, 50/60 Hz, 80 W
Output: DC 18 V, max. 3 A

▭ indicates safety information.

Ambient operating temperature:
32°F to 104°F (0°C to 40°C)
Storage temperature:
–4°F to +140°F (–20°C to +60°C)
Ambient operating humidity:
10% to 85%
Weight:
10.34 lb (4.7 kg)
Dimensions (W×H×D):
8 3/16×5 3/16×15 7/16 inches (207×131.5×391 mm)

[TRANSMISSION AREA]

26-pin cable analog signal transmission (AJ-CA905G camera adapter ⇔ unit)

Transmission distance:
Max. 100 meters (when using AJ-C26100G)

[ANALOG OUTPUT SIGNALS]

Video

Frequency response:
MONITOR: 60 Hz to 8 MHz (±3 dB)
Y: 60 Hz to 8 MHz (±3 dB)
P_B/P_R: 60 Hz to 4 MHz (±3 dB)
Signal levels:
MONITOR: VBS, 1 $V_{[P-P]}$, 75 Ω
Y: VS, 1 $V_{[P-P]}$, 75 Ω
P_B/P_R: 757 $mV_{[P-P]}$, 75 Ω

Audio

Frequency response:
20 Hz to 20 kHz (±1 dB)
Distortion:
Less than 0.5%
Output level:
–20 dBu

[ANALOG INPUT SIGNALS]

GEN LOCK:
VBS, 1 $V_{[P-P]}$, 75 Ω
RET:
VBS, 1 $V_{[P-P]}$, 75 Ω

[TALLY SIGNALS]

Input:
Contact/DC voltage supply (selected using internal switch)
Output:
Open collector type, 10 mA max. inrush current, DC 12 V voltage

[INTER-COMMUNICATION]

Signal-to-noise ratio:
Better than 50 dB
Dynamic range:
More than 10 dB (at 1% distortion)

Unit ⇔ AJ-CA905G camera adapter

Microphone type selection:
Carbon microphone or dynamic microphone (selected using internal switch)
System:
RTS: 1 $V_{[P-P]}$ (200 Ω)
Signals:
For unit ➧ AJ-CA905G:
INCOM/PGM MIX
For AJ-CA905G ➧ unit
INCOM
Frequency response:
Unit ➧ AJ-CA905G:
500 Hz to 5 kHz (±3 dB)
AJ-CA905G ➧ unit:
100 Hz to 5 kHz (±3 dB)

Unit ⇔ communication

Microphone type selection:
Carbon microphone/dynamic microphone (selected using internal switch)
Signal levels:
INCOM input: 0 dBu, high impedance
INCOM output: 0 dBu, low impedance
PGM input: 0 dBu, high impedance

Specifications

[INPUT CONNECTORS]

GEN LOCK:
BNC ×2, 75 Ω, bridge
RET:
BNC ×2, 75 Ω, bridge
Communication:
INCOM: XLR (3 pins), high impedance
PGM: XLR (3 pins), high impedance
AC IN socket:
3 pins

[OUTPUT CONNECTORS]

MONITOR:
1 line, BNC, 75 Ω
Y, P_B, P_R:
1 line, BNC, 75 Ω
AUDIO OUT:
XLR (3 pins), low impedance
Communication:
XLR (3 pins), low impedance

[INPUT/OUTPUT CONNECTOR]

INCOM:
XLR (5 pins)
TALLY:
12 pins
CAMERA:
26 pins

Specifications

[GENERAL]

Power supply
Input: AC 100-240 V, 50/60 Hz, 80 W
Output: DC 18 V, max. 3 A

▭ indicates safety information.

Ambient operating temperature:
0°C to 40°C
Storage temperature:
–20°C to +60°C
Ambient operating humidity:
10% to 85%
Weight:
4.7 kg
Dimensions (W×H×D):
207×131.5×391 mm

[TRANSMISSION AREA]

26-pin cable analog signal transmission (AJ-CA905G camera adapter ⇔ unit)

Transmission distance:
Max. 100 meters (when using AJ-C26100G)

[ANALOG OUTPUT SIGNALS]

Video

Frequency response:
MONITOR: 60 Hz to 8 MHz (±3 dB)
Y: 60 Hz to 8 MHz (±3 dB)
P_B/P_R: 60 Hz to 4 MHz (±3 dB)
Signal levels:
MONITOR: VBS, 1 $V_{[P-P]}$, 75 Ω
Y: VS, 1 $V_{[P-P]}$, 75 Ω
P_B/P_R: 525 $mV_{[P-P]}$, 75 Ω

Audio

Frequency response:
20 Hz to 20 kHz (±1 dB)
Distortion:
Less than 0.5%
Output level:
–20 dBu

[ANALOG INPUT SIGNALS]

GEN LOCK:
VBS, 1 $V_{[P-P]}$, 75 Ω
RET:
VBS, 1 $V_{[P-P]}$, 75 Ω

[TALLY SIGNALS]

Input:
Contact/DC voltage supply (selected using internal switch)
Output:
Open collector type, 10 mA max. inrush current, DC 12 V voltage

[INTER-COMMUNICATION]

Signal-to-noise ratio:
Better than 50 dB
Dynamic range:
More than 10 dB (at 1% distortion)

Unit ⇔ AJ-CA905G camera adapter

Microphone type selection:
Carbon microphone or dynamic microphone (selected using internal switch)
System:
RTS: 1 $V_{[P-P]}$ (200 Ω)
Signals:
For unit ➧ AJ-CA905G:
INCOM/PGM MIX
For AJ-CA905G ➧ unit
INCOM
Frequency response:
Unit ➧ AJ-CA905G:
500 Hz to 5 kHz (±3 dB)
AJ-CA905G ➧ unit:
100 Hz to 5 kHz (±3 dB)

Unit ⇔ communication

Microphone type selection:
Carbon microphone/dynamic microphone (selected using internal switch)
Signal levels:
INCOM input: 0 dBu, high impedance
INCOM output: 0 dBu, low impedance
PGM input: 0 dBu, high impedance

Specifications

[INPUT CONNECTORS]

GEN LOCK:
BNC ×2, 75 Ω, bridge
RET:
BNC ×2, 75 Ω, bridge
Communication:
INCOM: XLR (3 pins), high impedance
PGM: XLR (3 pins), high impedance
AC IN socket:
3 pins

[OUTPUT CONNECTORS]

MONITOR:
1 line, BNC, 75 Ω
Y, P_B, P_R:
1 line, BNC, 75 Ω
AUDIO OUT:
XLR (3 pins), low impedance
Communication:
XLR (3 pins), low impedance

[INPUT/OUTPUT CONNECTOR]

INCOM:
XLR (5 pins)
TALLY:
12 pins
CAMERA:
26 pins

规格

[一般]

电源
输入: AC (100-240) V ，50/60 Hz，80 W
输出: DC 18 V，最大3 A

显示安全信息。

环境操作温度:
0°C 至40°C
存储温度:
–20°C 至+60°C
环境操作湿度:
10% 至85%
重量:
4.7 kg
尺寸（宽×高×深）:
207 × 131.5 × 391 mm

[传输区域]

26 芯电缆模拟信号传输
（AJ-CA905G 多芯电缆控制系统适配器 ⇔ 本机）

传输距离:
最长100 米（使用AJ-C26100G 时）

[模拟输出信号]

视频

频率响应:
MONITOR: 60 Hz 至8 MHz (±3 dB)
Y: 60 Hz 至8 MHz (±3 dB)
PB/PR: 60 Hz 至4 MHz (±3 dB)
信号电平:
MONITOR: VBS, 1 V[P-P], 75 Ω
Y: VS, 1 V[P-P], 75 Ω
PB/PR: 525 mV[P-P], 75 Ω

音频

频率响应:
20 Hz 至20 kHz (±1 dB)
失真:
少于 0.5%
输出电平:
–20 dBu

[模拟输入信号]

GEN LOCK:
VBS, 1 V[P-P], 75 Ω
RET:
VBS, 1 V[P-P], 75 Ω

[记录信号]

输入:
触点/DC 电源（由内部开关选择）
输出:
开放式接口类型，最大峰值电流10 mA，DC 12 V 电压

[内部通讯]

信噪比:
好于50 dB
动态范围:
高于10 dB（1% 失真）

本机 ⇔ AJ-CA905G 多芯电缆控制系统适配器:

麦克风类型选择:
碳质麦克风或动态麦克风（由内部开关选择）
系统:
RTS: 1 V[P-P] (200 Ω)
信号:
对于本机 ➧ AJ-CA905G:
INCOM/PGM MIX
对于AJ-CA905G ➧ 本机:
INCOM
频率响应:
本机 ➧ AJ-CA905G:
500 Hz 至5 kHz (±3 dB)
AJ-CA905G ➧ 本机:
100 Hz 至5 kHz (±3 dB)

本机 ⇔ 通讯

麦克风类型选择:
碳质麦克风/动态麦克风（由内部开关选择）
信号电平:
INCOM 输入 : 0 dBu，高阻抗
INCOM 输出 : 0 dBu，低阻抗
PGM 输入 : 0 dBu，高阻抗

规格

[输入接口]

GEN LOCK:
BNC ×2，75 Ω，桥式
RET:
BNC ×2，75 Ω，桥式
通讯:
INCOM ：XLR（3 针），高阻抗
PGM ：XLR（3 针），高阻抗
AC IN 插座:
3 针

[输出接口]

MONITOR:
1 线，BNC，75 Ω
Y, PB, PR:
1 线，BNC，75 Ω
AUDIO OUT:
XLR（3 针），低阻抗
通讯:
XLR（3 针），低阻抗

[输入/输出接口]

INCOM:
XLR（5 针）
TALLY:
12 针
CAMERA:
26 针

Specifications

[GENERAL]

Input voltage:
Supplied from AJ-RC905: DC 18V
Input current: Max. 3 A
Supplied from battery: DC 12 V

indicates safety information.

Ambient operating temperature:
32°F to 104°F (0°C to 40°C)
Storage temperature:
–4°F to +140°F (–20°C to +60°C)
Ambient operating humidity:
10% to 85%
Weight:
1.98 lb (0.9 kg)
Dimensions (W×H×D):
5 7/8×8 5/16×4 5/8 inches (149×210×116 mm)

[TRANSMISSION AREA]

26-pin cable analog signal transmission (Unit ⇔ AJ-RC905 remote control unit)

Transmission distance:
Max. 100 meters (when using AJ-C26100G)

[INPUT/OUTPUT CONNECTOR]

RCU:
26 pins
INCOM:
XLR (5 pins)

[INTER-COMMUNICATION]

Microphone type selection:
Carbon microphone/dynamic microphone (selected using internal switch)
System:
RTS: 1 $V_{[P-P]}$ (200 Ω)
Signals:
For unit ➧ AJ-RC905:
INCOM
For AJ-RC905 ➧ unit:
INCOM/PGM MIX
Signal-to-noise ratio:
Better than 50 dB
Frequency response:
Unit ➧ AJ-RC905:
100 Hz to 5 kHz (±3 dB)
AJ-RC905 ➧ unit:
500 Hz to 5 kHz (±3 dB)
Dynamic range:
More than 10 dB (at 1% distortion)

SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts, which have been over-heated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohm meter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. The resistance value must be more than 5MΩ.

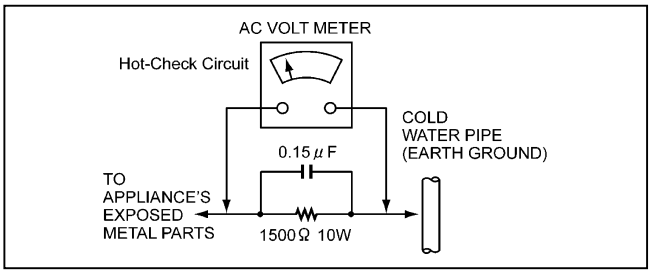


Figure1

LEAKAGE CURRENT HOT CHECK (See Figure 1)

1. Plug the AC cord directly into the AC outlet.
   Do not use an isolation transformer for this check.
2. Connect a 1.5KΩ, 10W resistor, in parallel with a 0.15μ F capacitor, between each exposed metallic part on the set an a good earth ground such as a water pipe, as shown in Figure1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet repeat each of the above measurements.
6. The potential at any point should not exceed 0.15 volts RMS. A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks, leakage current must not exceed 0.1 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

ABOUT LEAD FREE SOLDER (PbF)

Distinction of Pbf PCB:
PCBs (manufactured) using lead free solder will have a PbF stamp on the PCB.
Caution:

1. Pb free solder has a higher melting point than standard solder; Typically the melting point is 50–70˚F (30-40˚C) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to 700±20˚F (370±10˚C).
2. Pb free solder will tend to splash when heated too high (about 1100˚F/600˚C).

ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically sensitive (ED) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground.
   Alternatively, obtain and wear a commercially available discharging wrist trap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it.
   (most replacement ES devices are package with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

X-RADIATION

WARNING

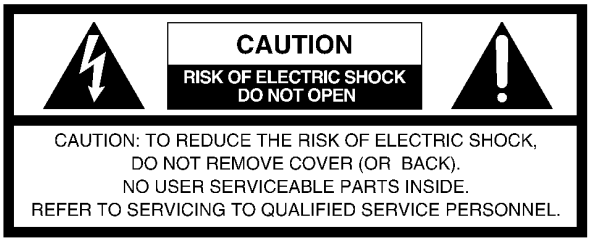
1. The potential source of X-radiation in EVF sets is the High Voltage section and the picture tube.
2. When using a picture tube test jig for service, ensure that jig is capable of handling 10kV without causing X-Radiation.

Note: It is important to use an accurate periodically calibrated high voltage meter.

3. Measure the High Voltage. The meter (electric type) reading should indicate 2.5kV, ±0.15kV. If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure. To prevent an X-Radiation possibility, it is essential to use the specified picture tube.

Operating precaution

Operation near any appliance which generates strong magnetic fields may give rise to noise in the video and audio signals. If this should be the case, deal with the situation by, for instance, moving the source of the magnetic fields away from the unit before operation.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER TO SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (service) instructions in the literature accompanying the appliance.

■ THIS APPARATUS MUST BE GROUNDED

To ensure safe operation the three-pin plug must be inserted only into a standard three-pin power outlet which is effectively grounded through normal household wiring. Extension cords used with the equipment must be three-core and be correctly wired to provide connection to the ground. Incorrectly wired extension cords can be extremely hazardous.

The fact that the equipment operates satisfactorily does not imply that it is grounded, and the installation is not necessarily safe. For your safety, if in any doubt about the effective grounding of the equipment or power outlet, please consult a qualified electrician.

WARNING:

- **TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.**
- **TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, KEEP THIS EQUIPMENT AWAY FROM ALL LIQUIDS-USE AND STORE ONLY IN LOCATIONS WHICH ARE NOT EXPOSED TO THE RISK OF DRIPPING OR SPLASHING LIQUIDS, AND DO NOT PLACE ANY LIQUID CONTAINERS ON TOP OF THE EQUIPMENT.**

CAUTION:

Do not install or place this unit in a bookcase, built-in cabinet or any other confined space in order to maintain adequate ventilation. Ensure that curtains and any other materials do not obstruct the ventilation to prevent risk of electric shock or fire hazard due to overheating.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, REFER CHANGE OF SWITCH SETTING INSIDE THE UNIT TO QUALIFIED SERVICE PERSONNEL.

FCC Note:

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warning:

To assure continued FCC emission limit compliance, the user must use only shielded interface cables when connecting to external units. Also any unauthorized changes or modifications to this equipment could void the user's authority to operate it.

CAUTION:

THE AC OUTLET (MAINS SOCKET) SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

CAUTION:

This apparatus can be operated at a voltage in the range of 100 – 240 V AC.

Voltage other than 120 V is not intended for U.S.A. and Canada.

CAUTION:

Operation at a voltage other than 120 V AC may require the use of a different AC plug. Please contact either a local or foreign Panasonic authorized service center for assistance in selecting an alternate AC plug.

CAUTION:

Even when the Power Switch is in the OFF position, a small current flows the filter circuit.

indicates safety information.

Operating precaution

Operation near any appliance which generates strong magnetic fields may give rise to noise in the video and audio signals. If this should be the case, deal with the situation by, for instance, moving the source of the magnetic fields away from the unit before operation.

■ **DO NOT REMOVE PANEL COVER BY UNSCREWING.**

To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside.
Refer servicing to qualified service personnel.

WARNING:

- **TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.**
- **TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, KEEP THIS EQUIPMENT AWAY FROM ALL LIQUIDS-USE AND STORE ONLY IN LOCATIONS WHICH ARE NOT EXPOSED TO THE RISK OF DRIPPING OR SPLASHING LIQUIDS, AND DO NOT PLACE ANY LIQUID CONTAINERS ON TOP OF THE EQUIPMENT.**

CAUTION:

Do not install or place this unit in a bookcase, built-in cabinet or any other confined space in order to maintain adequate ventilation. Ensure that curtains and any other materials do not obstruct the ventilation to prevent risk of electric shock or fire hazard due to overheating.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

CAUTION:

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, REFER CHANGE OF SWITCH SETTING INSIDE THE UNIT TO QUALIFIED SERVICE PERSONNEL.

CAUTION:

THE AC OUTLET (MAINS SOCKET) SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

CAUTION:

Even when the Power Switch is in the OFF position, a small current flows the filter circuit.

▭ indicates safety information.

操作前的警告

在任何产生强磁场的设备附近进行操作都可能引起视频和音频信号中的噪声。如果是这种情况，要有所处理，例如在操作前将磁场源移开，使其远离本机。

■ **不要开启面板盖。**

为了减少电击的危险，不要打开面板盖。里面没有用户能维修的部件。
有关维修问题，请与合格的维修人员联系。

警告:

为减少火患或电击的危险，本设备应避开一切使用液体的场合，并只能存放在没有滴液或溅液危险的地方，也不要在本设备预端放置任何液体容器。

注意事项:

为了保持良好的通风条件，请不要将本机安装或置放于书橱、壁柜或其他密封空间中。确保窗帘或其他织物不会阻碍通风条件，防止因过热而发生电击或起火。

注意事项:

为了减少起火或电击的危险以及烦人的干扰，请只使用推荐的附件。

注意事项:

为了减少起火或电击危险，有关本机内部开关设置的改动请与合格的维修人员联系。

注意事项:

交流电源插座（主插座）必须安装在靠近设备的地方，以便易于接近。

注意事项:

即使POWER 开关处于关的位置，仍有少量电流流经滤波电路。

显示安全信息。

For your safety

General

■ **DO NOT REMOVE PANEL COVER BY UNSCREWING.**
To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside.
Refer servicing to qualified service personnel.

WARNING:
- **TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.**
- **TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, KEEP THIS EQUIPMENT AWAY FROM ALL LIQUIDS-USE AND STORE ONLY IN LOCATIONS WHICH ARE NOT EXPOSED TO THE RISK OF DRIPPING OR SPLASHING LIQUIDS, AND DO NOT PLACE ANY LIQUID CONTAINERS ON TOP OF THE EQUIPMENT.**

CAUTION:
Do not install or place this unit in a bookcase, built-in cabinet or any other confined space in order to maintain adequate ventilation. Ensure that curtains and any other materials do not obstruct the ventilation to prevent risk of electric shock or fire hazard due to overheating.

CAUTION:
TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

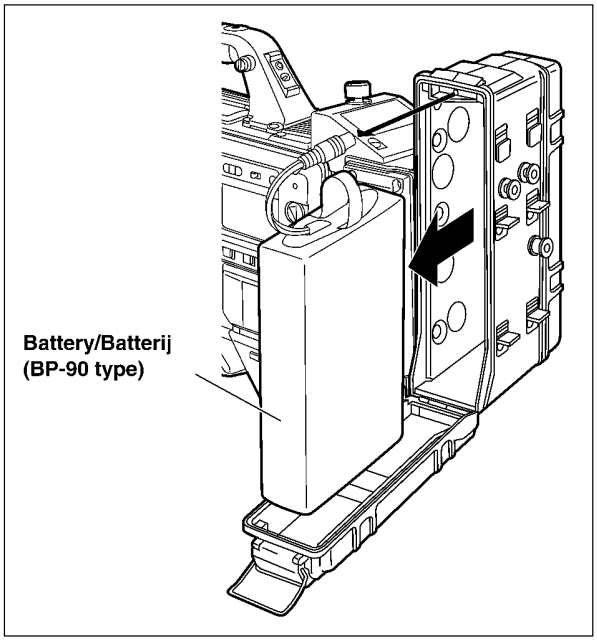
CAUTION:
TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, REFER CHANGE OF SWITCH SETTING INSIDE THE UNIT TO QUALIFIED SERVICE PERSONNEL.

▭ indicates safety information.

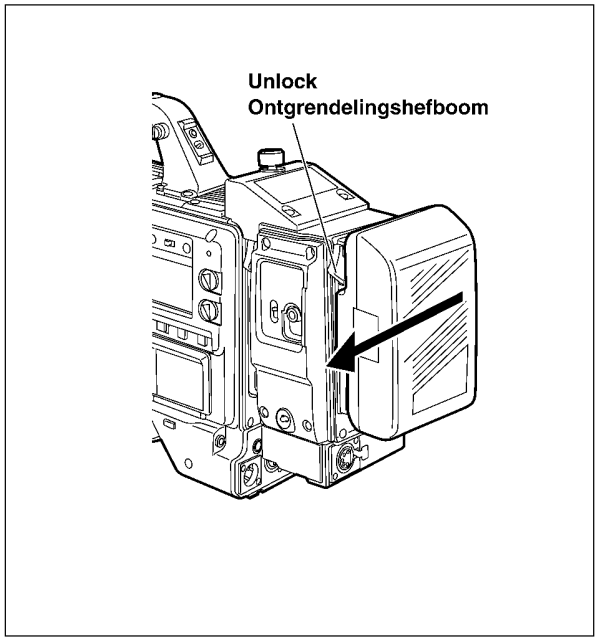
To remove the battery/Verwijderen van de batterij

Main Power Battery (Ni-Cd Battery)
Batterij Voor Primaire Voeding (Nikkelcadmiumbatterij)

Battery/Batterij (BP-90 type)

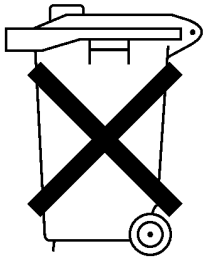


Anton Bauer Battery
Anton Bauer-Batterij



- **If a battery made by any other manufacturer is to be used, check the Operating Instructions accompanying the battery.**
- **In geval u een batterij van een anden fabrikant zou gebruiken, gelieve dan eerst zorgvuldig de gebruiksaanwijzing van deze batterij te lezen.**

Attention/Attentie



- Batteries are used for the main power source and memory back-up in the product.
  At the end of their useful life, you should not throw them away.
  Instead, hand them in as small chemical waste.
- Voor de primaire voeding en het reservegeheugen van het apparaat wordt gebruikgemaakt van een batterij.
  Wanneer de batterij is uitgeput, mag u deze niet gewoon weggooien, maar dient u deze als klein chemisch afval weg te doen.

Operating precaution

Operation near any appliance which generates strong magnetic fields may give rise to noise in the video and audio signals. If this should be the case, deal with the situation by, for instance, moving the source of the magnetic fields away from the unit before operation.

For U.S.A.

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER TO SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (service) instructions in the literature accompanying the appliance.

FCC Note:
This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warning:
To assure continued FCC emission limit compliance, the user must use only shielded interface cables when connecting to external units. Also any unauthorized changes or modifications to this equipment could void the user's authority to operate it.

ATTENTION:
The product you have purchased is powered by a nickel cadmium battery which is recyclable. At the end of it's useful life, under various state and local laws, it is illegal to dispose of this battery into your municipal waste stream.
Please call 1-800-8-BATTERY for information on how to recycle this battery.

▭ indicates safety information.

Panasonic®

FCD0407NTKE442E445

SECTION 1

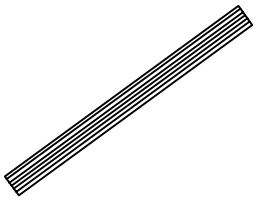
SERVICE INFORMATION

CONTENTS

1. SERVICING TOOL.....INF-1
2. SOFTWARE VERSION UPGRADE METHOD.....INF-1
3. AUDIO OUTPUT LEVEL.....INF-4
4. CIRCUIT BOARD LAYOUT INF-5

1. SERVICING TOOL

NO.	NEW	PART NO.	FIXTURE & TOOL NAME	REMARK
1		VFK1726	Intermediate Board	
2		VWJ20E5500L00	Flat Cable	
3		--------	FLASH ROM Version-up Tool (FLASH1) W/Version Upgrade Software	Supplied from Hokuto Denshi Co., LTD.

1 **VFK1726** Intermediate Board 	**2** **VWJ20E5500L00** Flat Cable 	**3** **-------** FLASH ROM Version-up Tool (FLASH1) 	

2. SOFTWARE VERSION UPGRADE METHOD

This Remote Control Unit (AJ-RC905) uses built-in Flash ROM Microcomputer (IC6) on the Front Board.
At the time of a version upgrade, use the special tool, cable and software as shown in paragraph 1.

1. Connect the flat (ribbon) cable (VWJ20E5500L00) between P1 connector on the Front Board in the AJ-RC905 and Intermediate Board (VFK1726), and then connect the cable from the FLASH 1 Version-up Tool to the Intermediate Board as shown in figure 1.
2. Connect a D-SUB 25-pin / 9-pin Cable (Straight type) between the COM port (1 or 2) on the PC and RS-232C connector on the FLASH Memory Version-up Tool (FLASH1) as shown figure 2.
3. Set the all pins of SW3 on the Front Board as shown in figure 2 to the OFF position.
4. Turn ON the power of the AJ-RC905 and then boot up the PC (Windows® Mode).
5. Install the Version-up Software “Flash1 for windows software” to the PC from the CD-ROM which enclosed in the FLASH Memory Version-up Tool.
   Refer to the enclosed Operating Instruction for more details of software installation.
6. Execute the “Flash1 for windows” as the following steps.
   (“Start” → ”Program” → “Hokuto Denshi” → Flash1 for Windows”)

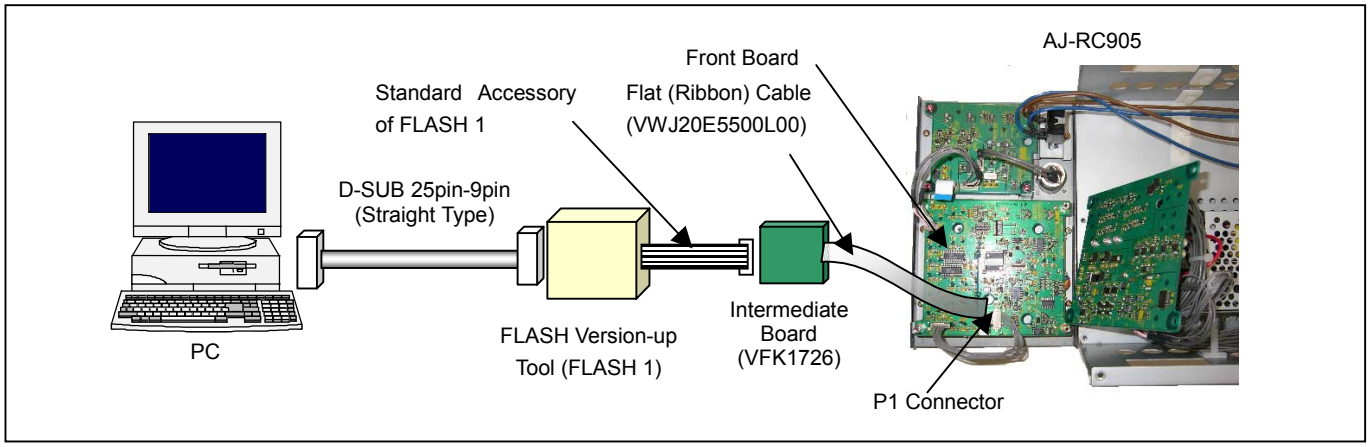


Fig. 1 System Connection

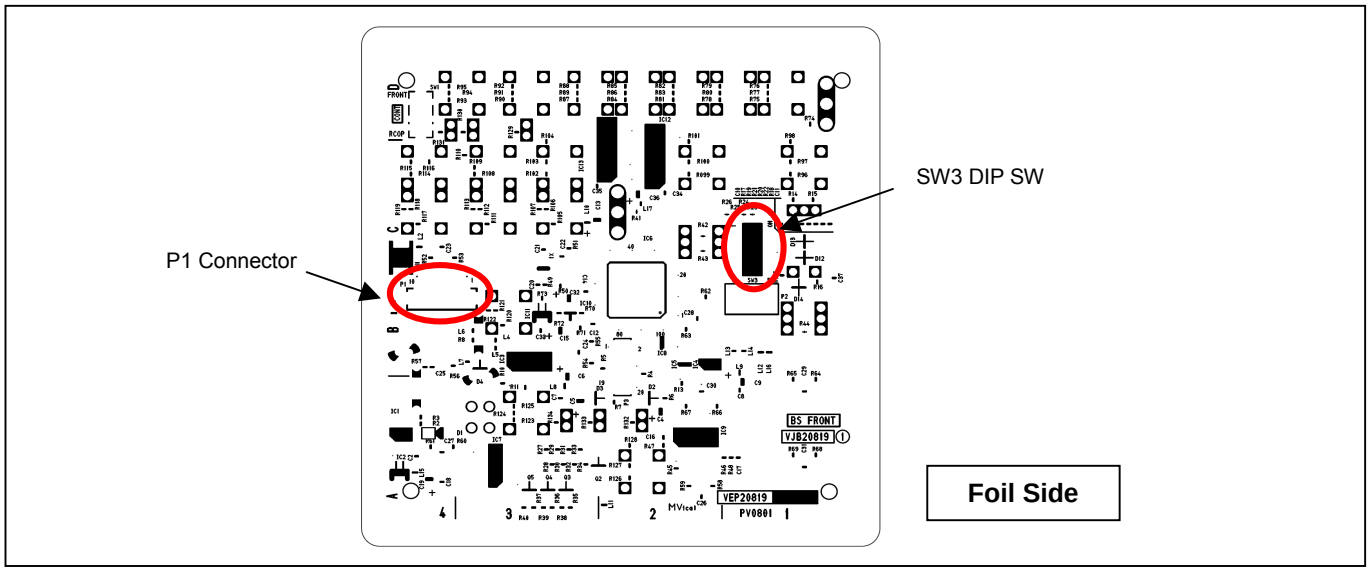


Fig. 2 Component Location

7. Set the parameters as shown in figure 3.

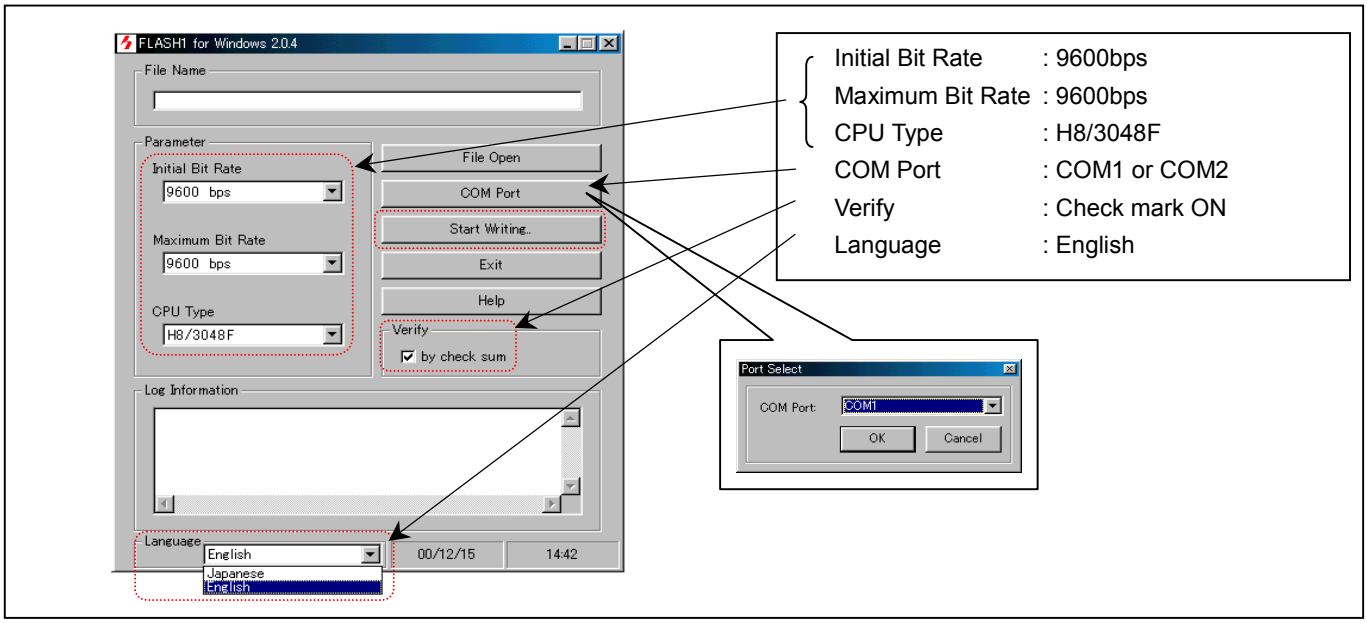


Fig. 3 Parameter Window

8. Click the “File Open” button.
9. Select the version-up data file (xxxx.mot format file) and then click the “Open” button. (See Figure 4)

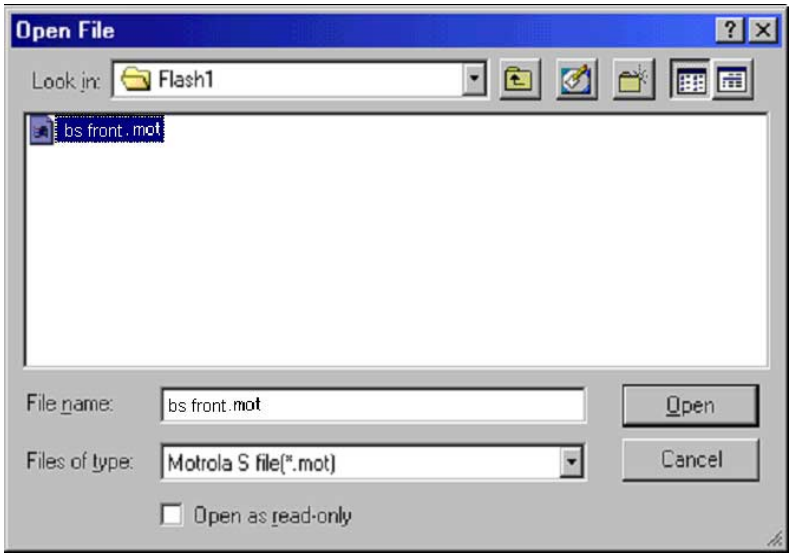


Fig. 4 Open File Dialog

10. On the main window, click the “Start writing” button and data transfer will be started from the PC to the AJ-RC905. (It takes about two-minutes.)
11. When a message “Completes Writing of file: xxxx.mot” appears, the software version upgrade is completed.

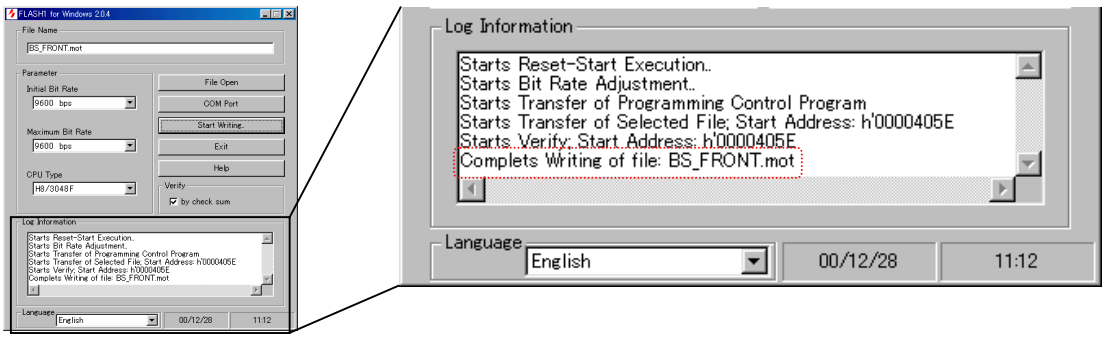


Fig. 5 Log Information

12. Turn off the power of AJ-RC905 and then set SW3 to the original position.

Note :

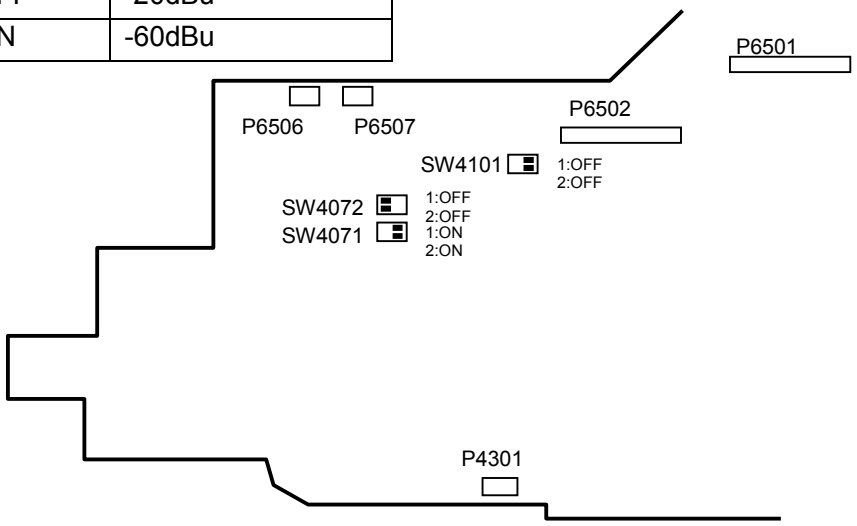
The FLASH1 Version-up Tool is a product from Hokuto Denshi Co., LTD.
Refer to Panasonic Engineering Web Site for the purchasing method and etc.

3. AUDIO OUTPUT LEVEL

The audio output level at the 26 pin connector on the camera adapter AJ-CA905 is the same level of the audio output signal from a camera recorder as it is.
When an audio signal supplies from this system to the external VTR which has -60dBu audio input, switch the audio output level of a camera recorder to -60dBu. The following figures show the select switch and level on the audio board of main models.

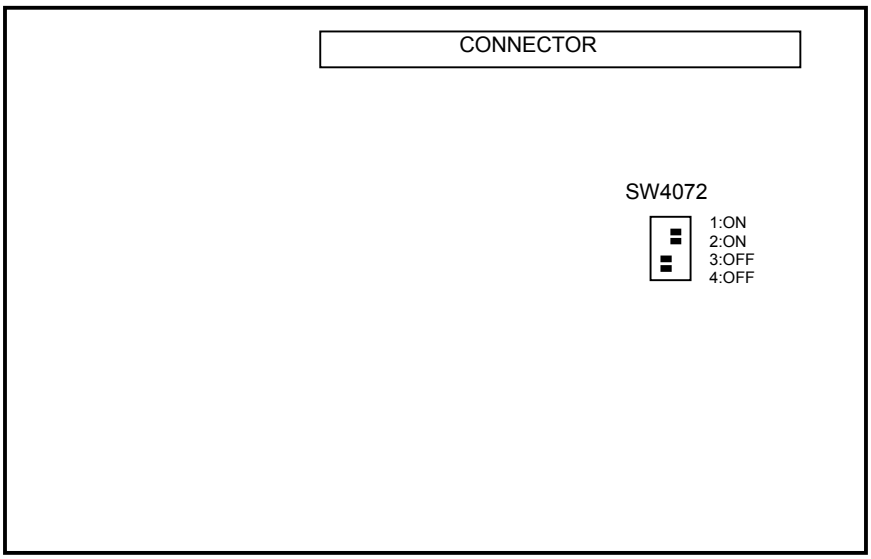
1) AJ-SDX900, AJ-SDC905, AJ-SDC615 [AUDIO LCD BOARD]

SWITCH	SETTING	OUTPUT LEVEL (TO 26PIN CABLE)
SW4702 (PIN 1)	OFF	-20dBu
	ON	-60dBu

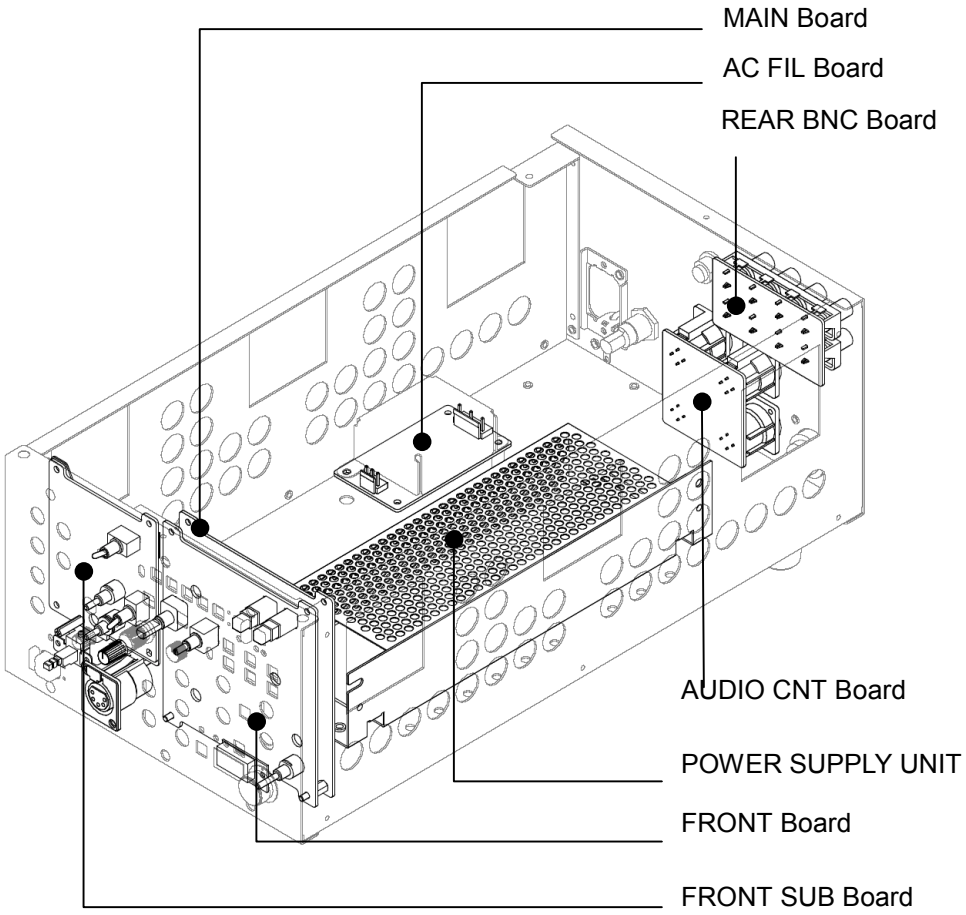


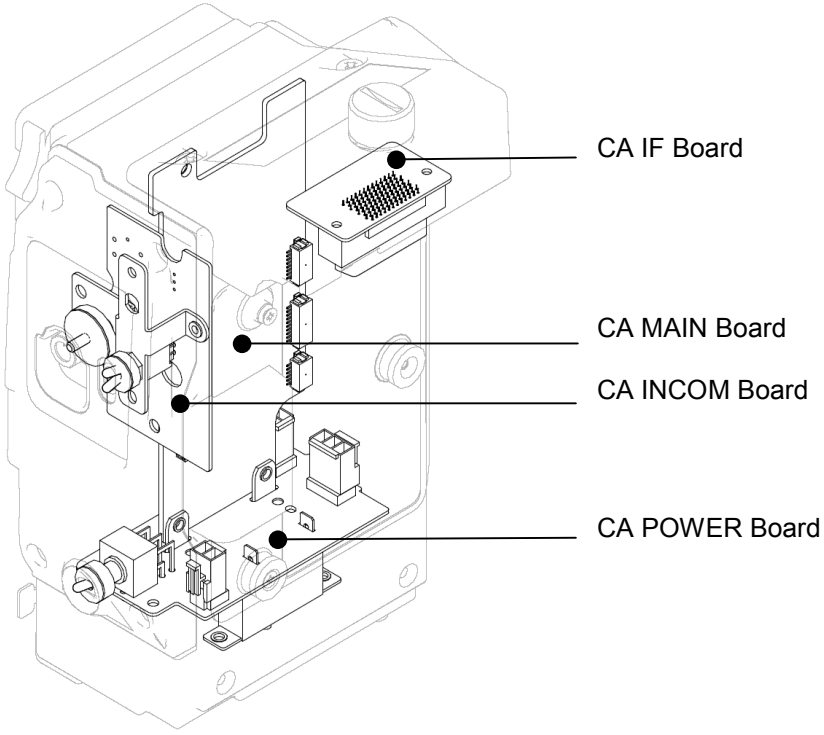
2) AJ-SPX800/SPX900 [AUDIO BOARD]

SWITCH	SETTING	OUTPUT LEVEL (TO 26PIN CABLE)
SW4702 (PIN 3)	OFF	-20dBu
	ON	-60dBu



4. CIRCUIT BOARD LAYOUT





SECTION 2

DISASSEMBLY PROCEDURES ELECTRICAL ADJUSTMENT

CONTENTS

DISASSEMBLY PROCEDURES
<< AJ-RC905 >>
1. Disassembly Procedure DIS-1
    1-1. Top Case Removal DIS-1
    1-2. Power Supply Unit Removal DIS-1
    1-3. Filter Board Removal DIS-1
    1-4. Main Board Removal DIS-1
    1-5. Front Board Unit Removal DIS-2
    1-6. Rear BNC Board Removal DIS-3
    1-7. Audio CNT Board Removal DIS-3

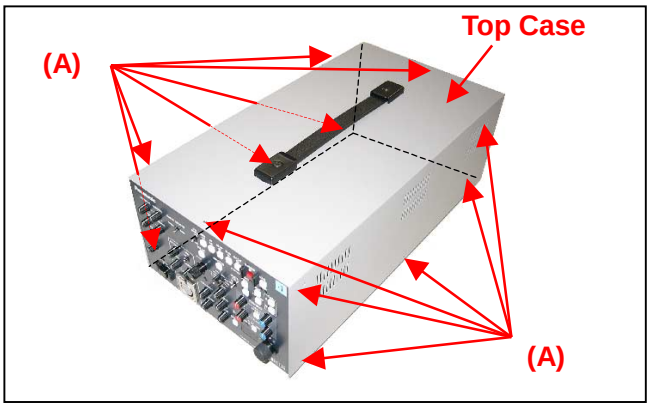
<< AJ-CA905G >>
1. Disassembly Procedure DIS-4
    1-1. Left Side Case Removal DIS-4
    1-2. Right Side Case Removal DIS-4
    1-3. Back Case Removal DIS-5
    1-4. CA IF Unit and Plate (Camera Connection) Removal DIS-5
    1-5. CA MAIN Board Removal DIS-6
    1-6. CA POWER Board Removal DIS-6

Confirmation Procedures
1. System Connection for Confirmation ELE-1
2. Setting for Video Circuit Confirmation ELE-1
    2-1. Monitor Out Level Confirmation ELE-2
    2-2. Monitor Out (Chroma) Level Confirmation ELE-2
    2-3. Y OUT Level Confirmation ELE-2
    2-4. Pb/Pr OUT Level Confirmation ELE-3
3. Setting for Audio Circuit Confirmation ELE-3
    3-6. COMMUNICATION → RCU INCOM Level Confirmation (1) ELE-5
    3-7. COMMUNICATION → RCU INCOM Level Confirmation (2) ELE-5
    3-8. COMMUNICATION → CA INCOM Level Confirmation (1) ELE-5
    3-9. COMMUNICATION → CA INCOM Level Confirmation (2) ELE-5

<< AJ-RC905P/E/MC >>
1. Disassembly Procedure

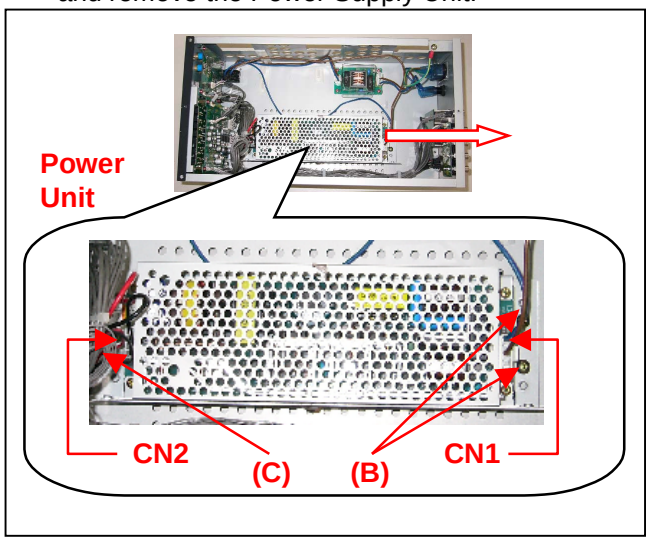
1-1. Top Case Removal

1. Unscrew the 12 screws (A) and then remove the Top Case.



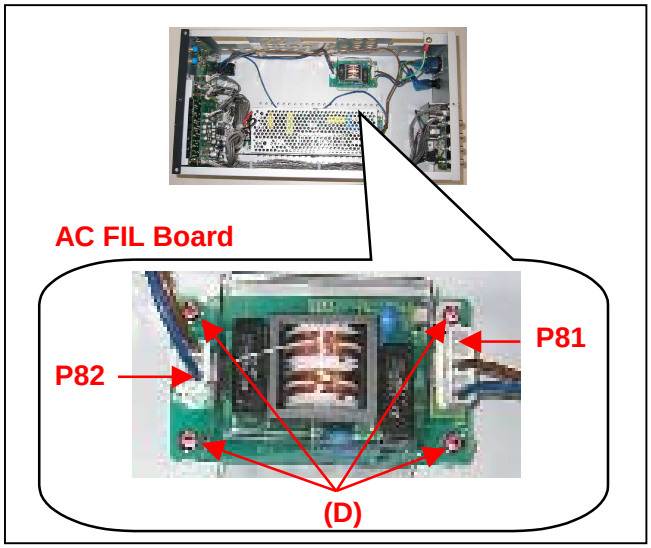
1-2. Power Supply Unit Removal

1. Disconnect the connectors CN1 and CN2.
2. Unscrew the screws (B) and loosen the screw (C), and remove the Power Supply Unit.



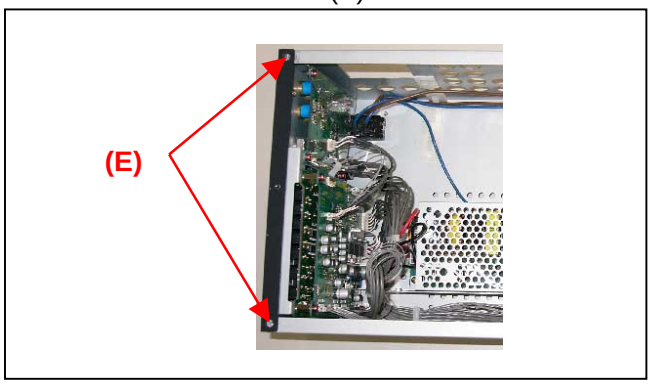
1-3. AC FIL Board Removal

1. Disconnect the connectors P81 and P82.
2. Unscrew 4 screws (D) and then remove the AC FIL (Filter) Board.

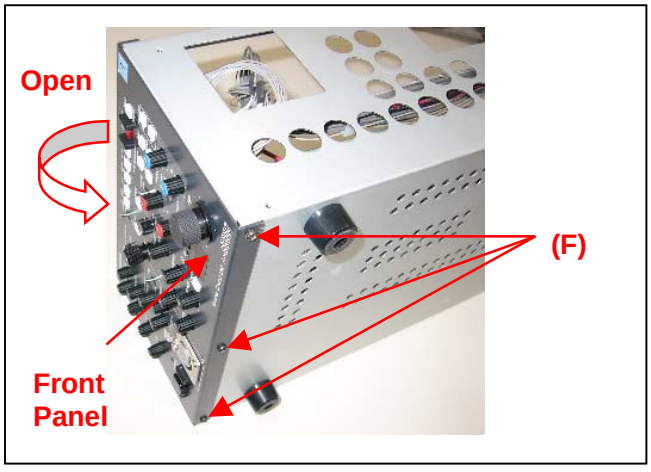


1-4. MAIN Board Removal

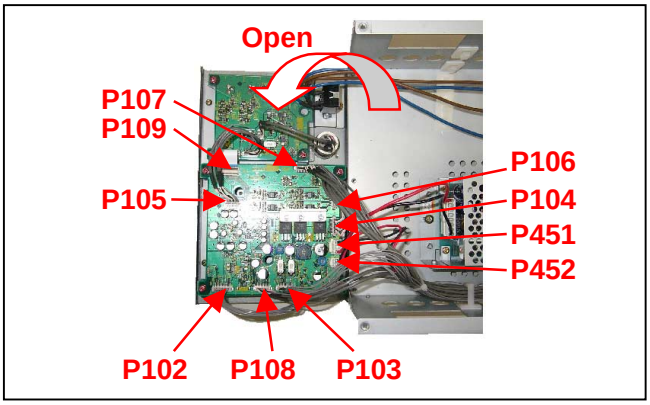
1. Unscrew the 2 screws (E).



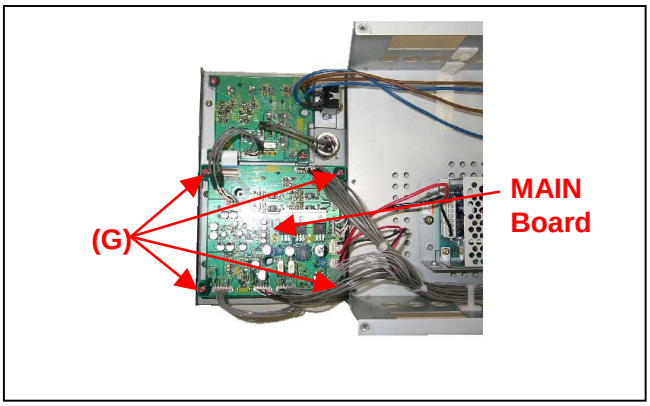
2. Unscrew the 3 screws (F) and then open the Front Panel as shown below.



3. Disconnect the connectors P107, P109, P105, P102, P108, P103, P452, P451, P104 and P106.

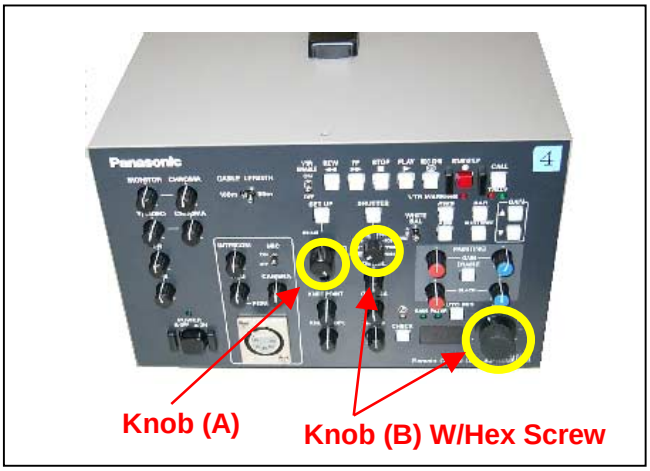


4. Unscrew the 4 screws (G) and then remove the MAIN Board.

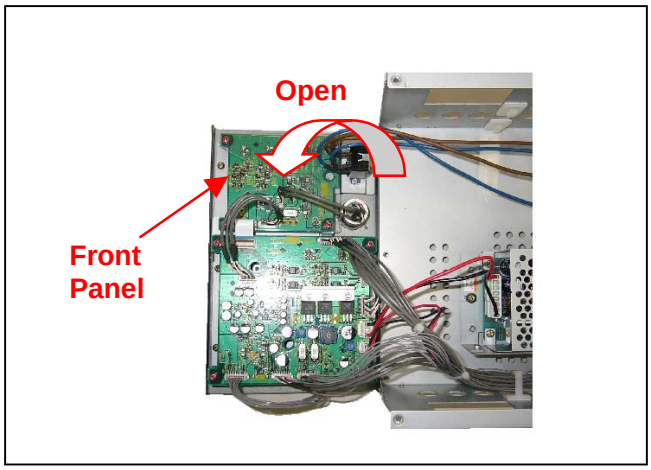


1-5. Front Board Unit Removal

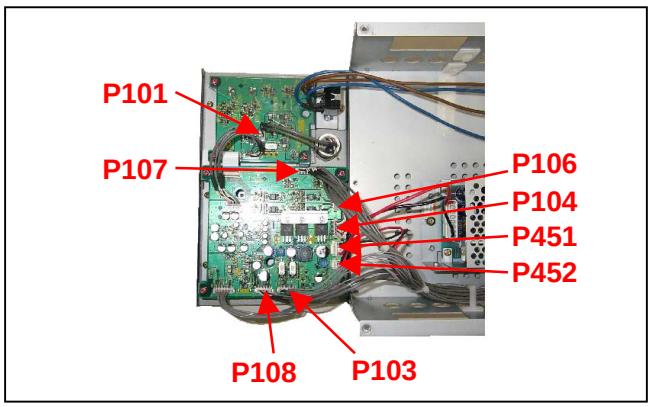
1. Pull out the knob (A) and loosen the hex screws on the knobs (B), and pull out the knobs (B).



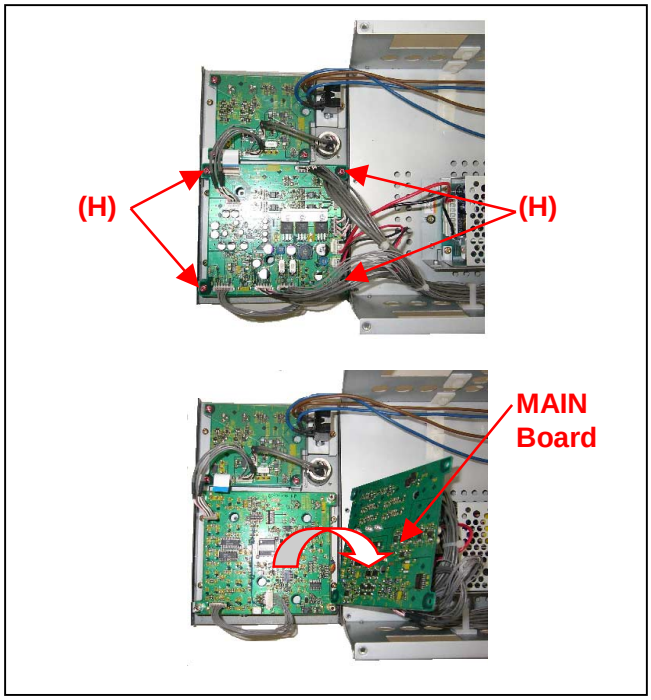
2. Open the Front Panel as shown below. (Refer to “1-4 Main Board Removal”.)



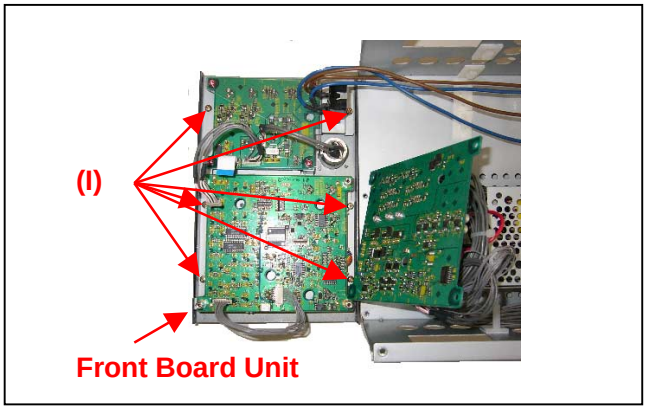
3. Disconnect the connectors P101, P107, P108, P103, P452, P451, P104 and P106.



4. Unscrew the 4 screws (H) and then stand the MAIN Board as shown below.

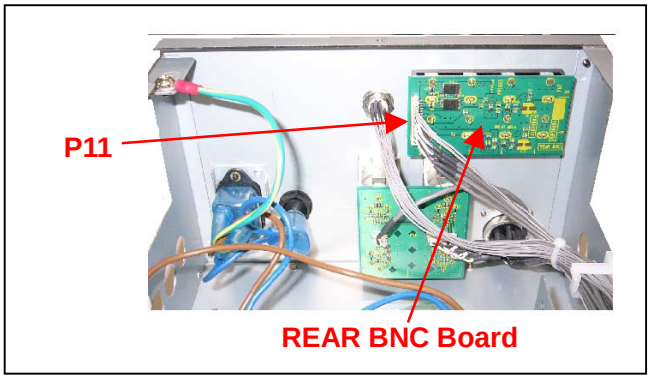


4. Unscrew the 6 screws (I) and remove the Front Board Unit.

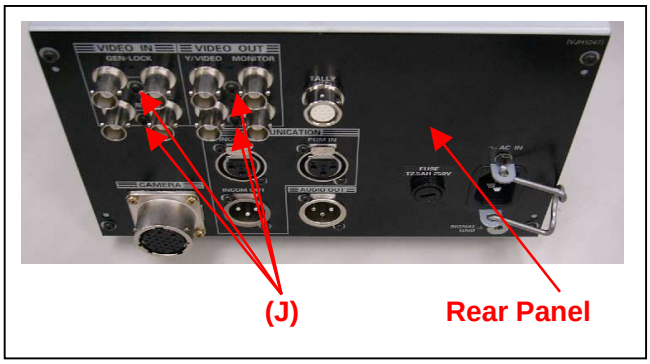


1-6. REAR BNC Board Removal

1. Disconnect the connector P11.

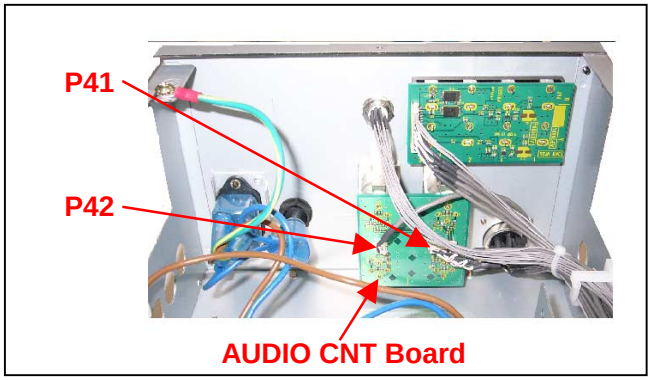


2. Unscrew the 4 screws (J) and remove the Rear BNC Board.

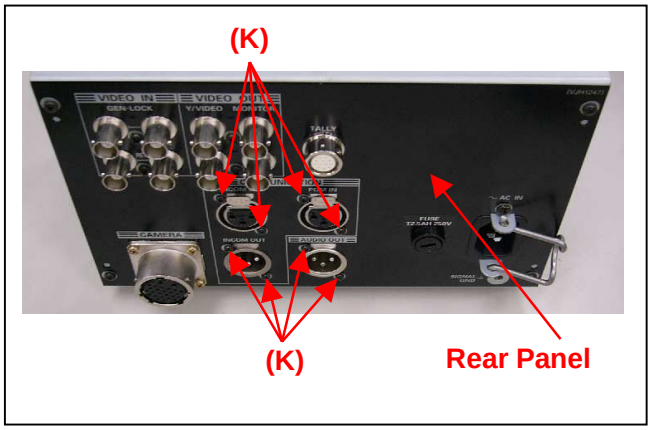


1-7. AUDIO CNT Board Removal

1. Disconnect the connectors P41 and P42.



2. Unscrew the 8 screws (K) and remove the AUDIO CNT Board.

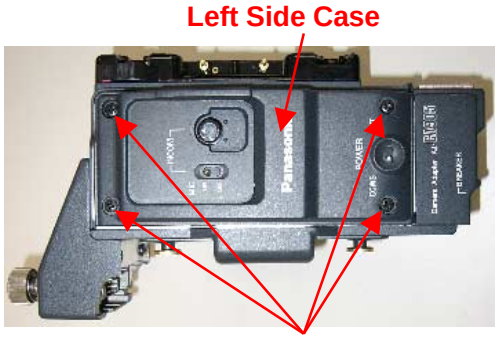


<< AJ-CA905G >>

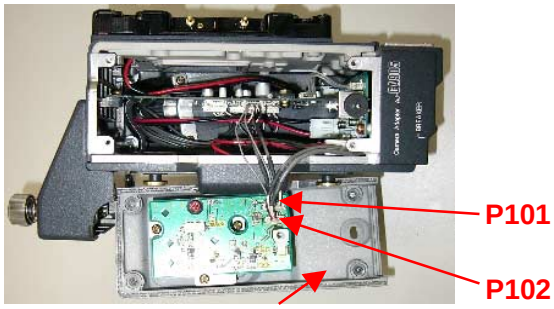
1. Disassembly Procedures

1-1. Left Side Case and CA INCOM Board Removal

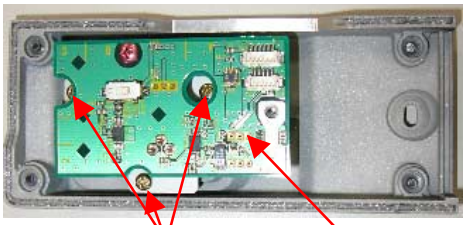
1. Unscrew the 4 screws (A) and lift up the Left Side Case.



2. Disconnect the connectors P101 and P102 and then remove the Left Side Case.

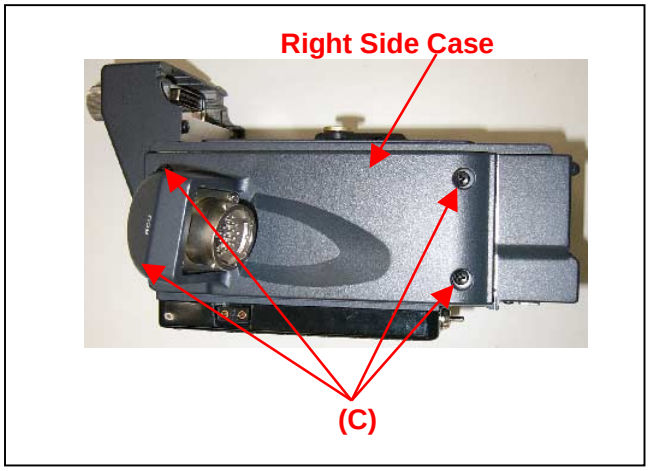


3. Unscrew the 3 screws (B) and then remove the CA INCOME Board.

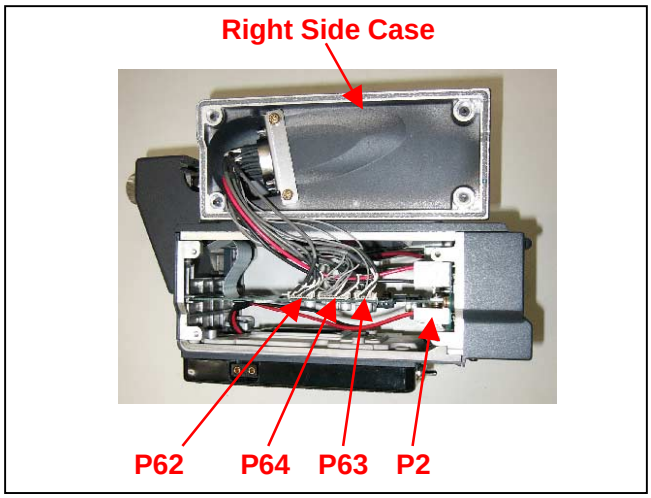


1-2. Right Side Case Removal

1. Unscrew the 4 screws (C) and then lift up the Right Side Case.

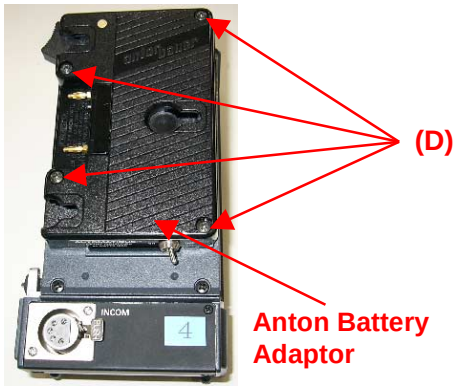


2. Disconnect the connectors P62, P64, P63 and P2 and then remove the Right Side Case.

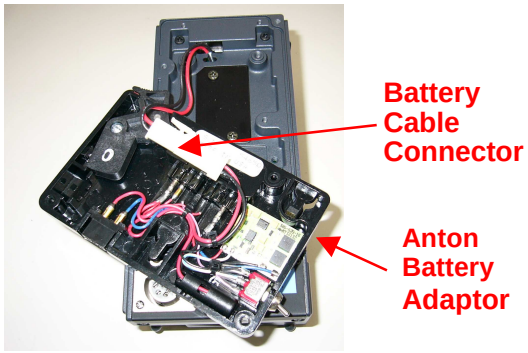


1-3. Back Case Removal

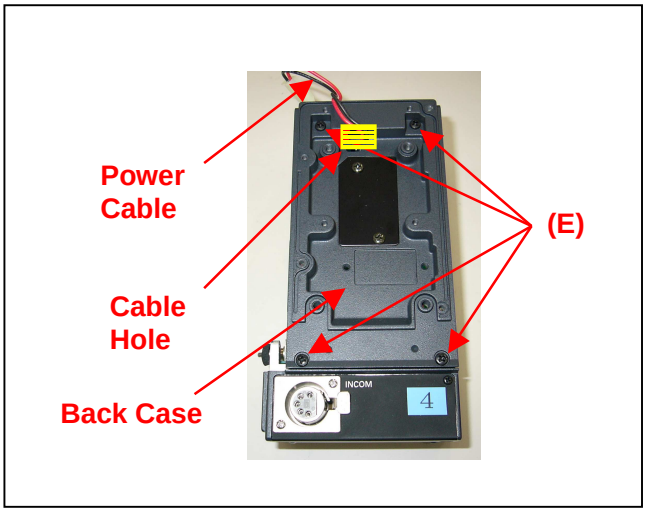
1. Unscrew the 4 screws (D) and then lift up the Anton Battery Adaptor.



2. Disconnect the Battery Cable Connector and then remove the Anton Battery Adaptor.



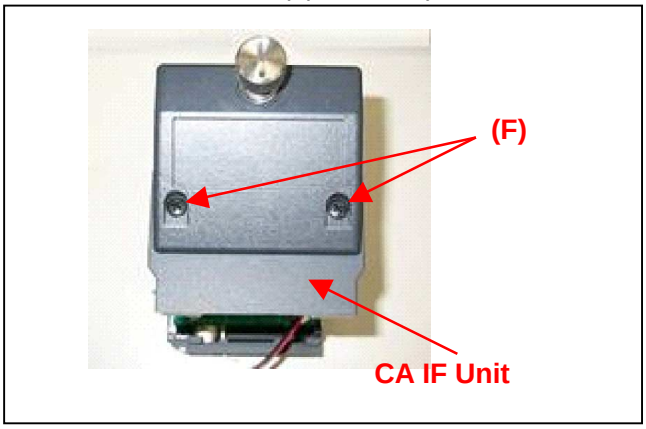
3. Unscrew the 4 screw (E) and then lift up the Back Case.



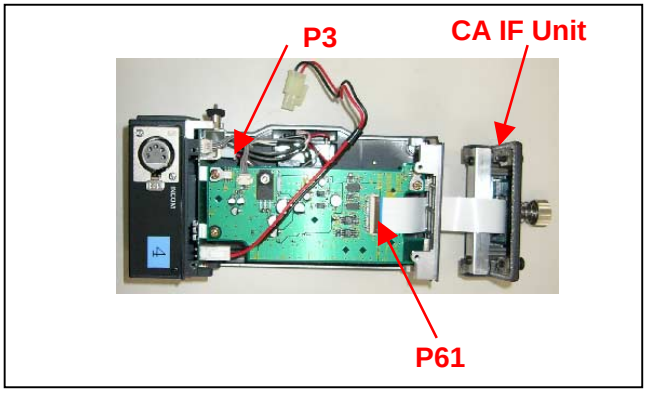
4. Make the Battery Cable pass through the hole of the back case, and then remove the Back Case.

1-4. CA IF Unit and Plate (Camera Connection) Removal

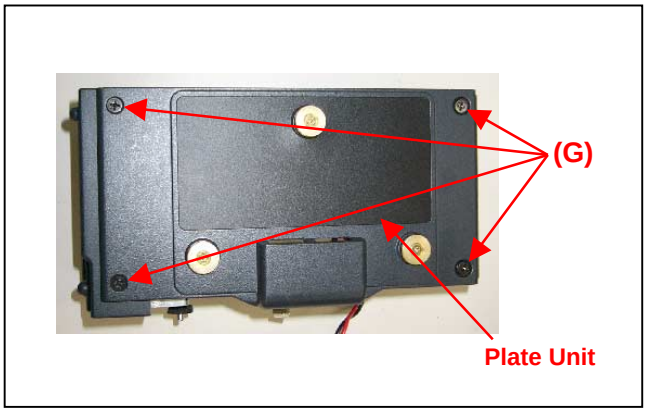
1. Unscrew 2 screws (F) and lift up the CA IF Unit.



2. 2. Disconnect the connector P61 and remove the CA IF Unit.
3. Disconnect the connector P3.

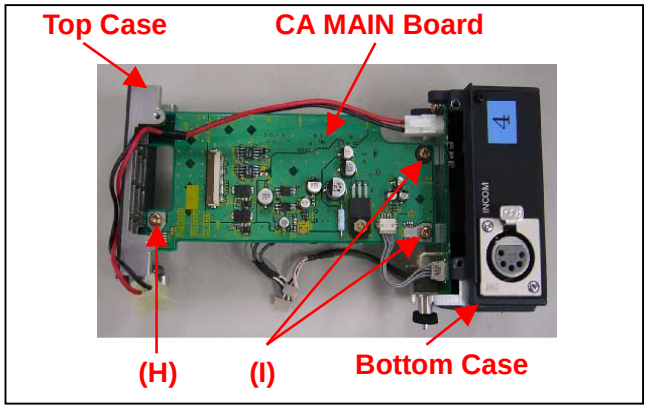


4. Unscrew 4 screws (G) and then remove the Plate Unit.



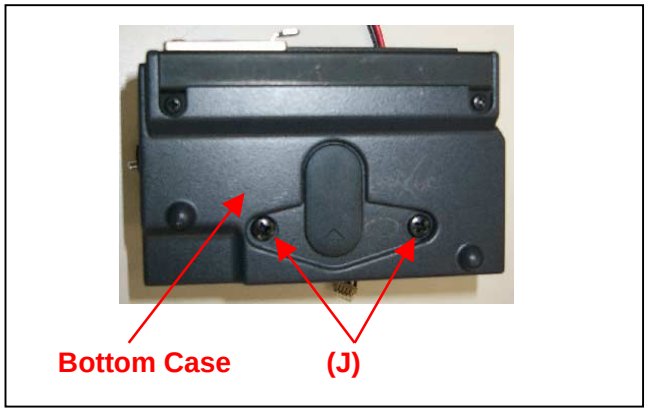
1-5. CA MAIN Board Removal

1. Unscrew the screw (H) and remove the Top Case.
2. Unscrew the 2 screws (I) and then remove the CA MAIN Board.

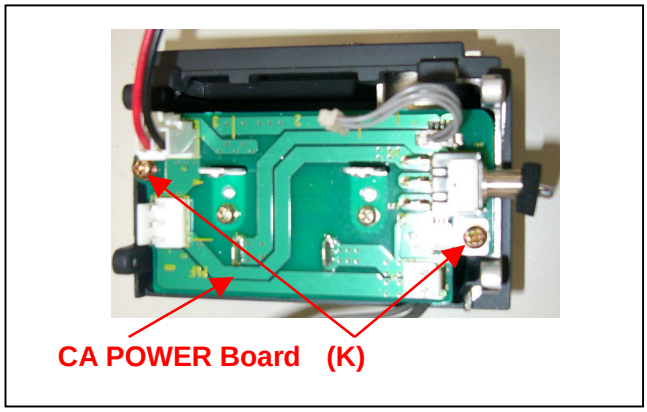


1-6. CA POWER Board Removal

1. Unscrew the 2 screw (J).

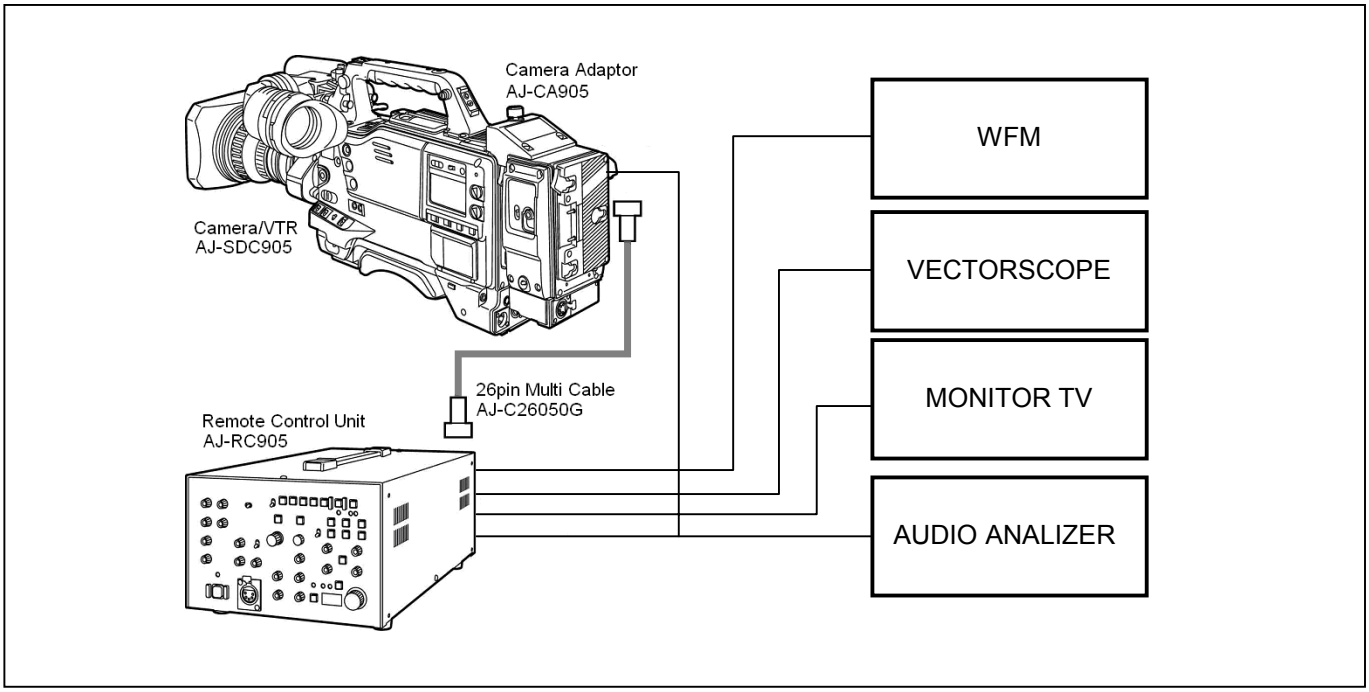


2. Unscrew the 2 screws (K) and remove the CA POWER Board.



Confirmation Procedures

1. System Connection for Confirmation



2. Setting for Video Circuit Confirmation

Setting for Camera / VTR

Camera Front Switch

GAIN	: L
OUTPUT	: CAM ON
White BAL	: PRE
SHUTTER	: OFF
AUTO W/B BAL	: OFF

Signal

Signal	: BARS

Lens

EXTENDER	: OFF

Filter

FILTER	: 1

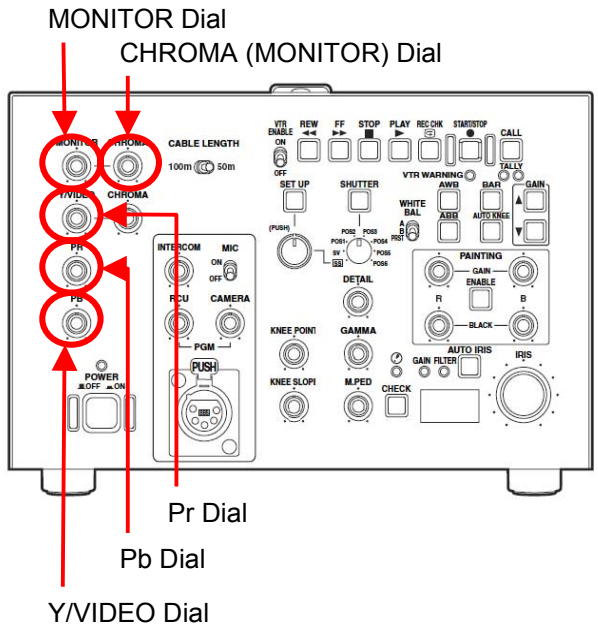
User Switch

USER MAIN	: OFF
USER 1	: OFF
USER 2	: OFF

Setting for RCU (AJ-RC905)

CABLE LENGTH	: 50m

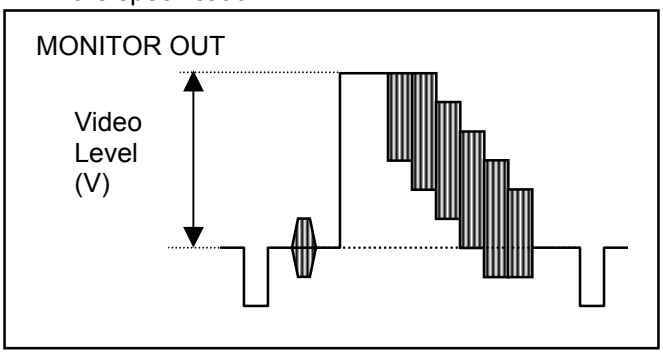
Adjustment Dial Location



2-1. Monitor Out Level Confirmation

TP	MON OUT (AJ-RC905)
ADJ.	MONITOR DIAL (AJ-RC905)
INPUT	COLOR BAR FROM CAMERA/VTR
MODE	STOP (CAMERA/VTR)
TAPE	---
M. EQ	WFM
SPEC.	(V) = 714mVp-p±7mV (NTSC) (V) = 700mVp-p±7mV (PAL)

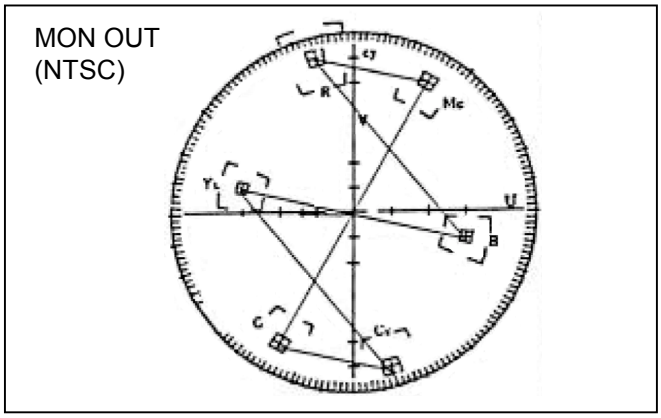
1. Press the BAR button on the Front Panel of AJ-RC905.
2. Confirm that the Video Level is increased by rotating the MONITOR DIAL on the Front Panel of AJ-RC905 clockwise.
3. Adjust the MONITOR DIAL so that the Video (V) is in the specification.

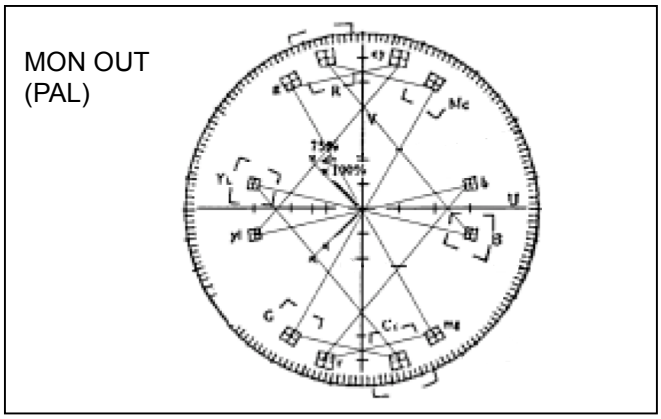


2-2. Monitor Out (Chroma) Level Confirmation

TP	MON OUT (AJ-RC905)
ADJ.	CHROMA DIAL (AJ-RC905)
INPUT	COLOR BAR FROM CAMERA/VTR
MODE	STOP (CAMERA/VTR)
TAPE	---
M. EQ	VECTORSCOPE
SPEC.	Each vector is in inner box

1. Press the BAR button on the Front Panel of AJ-RC905.
2. Confirm that the Chroma Level is increased by rotating the CHROMA DIAL on the Front Panel of AJ-RC905 clockwise.
3. Adjust the CHROMA DIAL so that each color vector is in the inner box.

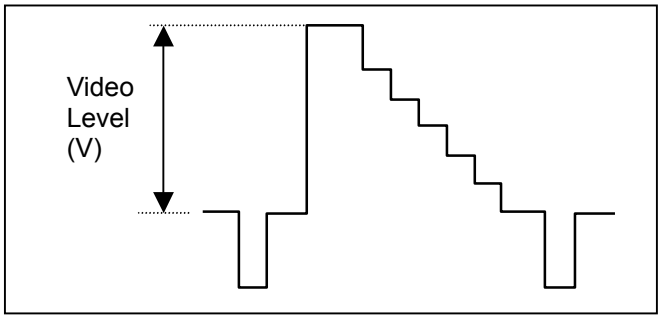




2-3. Y OUT Level Confirmation

TP	Y/VIDEO OUT (AJ-RC905)
ADJ.	Y/VIDEO DIAL (AJ-RC905)
INPUT	COLOR BAR FROM CAMERA/VTR
MODE	STOP (CAMERA/VTR)
TAPE	---
M. EQ	WFM
SPEC.	(V) = 700mVp-p±7mV

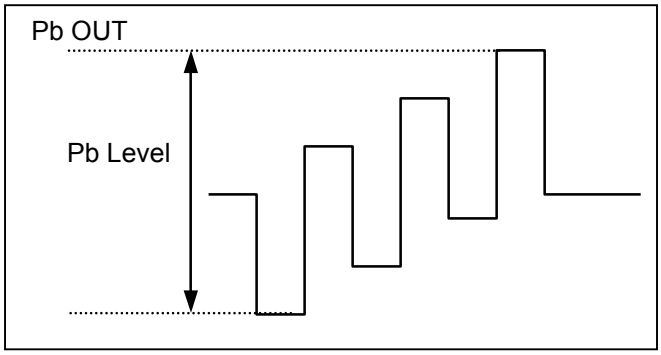
1. Press the BAR button on the Front Panel of AJ-RC905.
2. Confirm that the Y Level is increased by rotating the Y DIAL on the Front Panel of AJ-RC905 clockwise.
3. Adjust the Y DIAL so that Video Level (V) is in the specification.

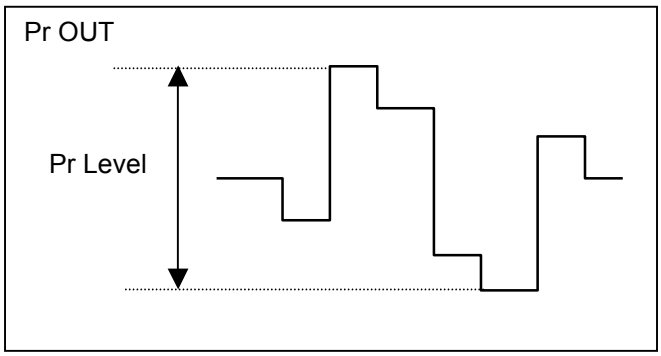


2-4. Pb/Pr OUT Level Confirmation

TP	Pb / Pr OUT (AJ-RC905)
ADJ.	Pb DIAL, Pr DIAL (AJ-RC905)
INPUT	COLOR BAR FROM CAMERA/VTR
MODE	STOP
TAPE	---
M. EQ	WFM
SPEC.	Pb/Pr LEVELS : 757mVp-p±8mV (NTSC) Pb/Pr LEVELS :525mVp-p±5mV (PAL)

1. Press the BAR button on the Front Panel of AJ-RC905.
2. Confirm that the Pb Level is increased by rotating the Pb DIAL on the Front Panel of AJ-RC905 clockwise.
3. Adjust the Rb DIAL so that Pb Level is in the specification
4. Confirm that the Pr Level is increased by rotating the Pr DIAL on the Front Panel of AJ-RC905 clockwise.
5. Adjust the Pr DIAL so that Pb Level is in the specification





3. Setting for Audio Circuit Confirmation

Menu Setting for Camera/VTR

MIC/AUDIO2

FRONT MIC POWER	: OFF
REAR MIC POWER	: ON
AUDIO OUT	: ON
MONITOR SELECT	: STEREO
FRONT MIC LEVEL	: -40dB

Setting for Camera / VTR

AUDIO IN SW CH1	: FRONT
AUDIO IN SW CH2	: FRONT

Setting for Audio Analyzer

Output

FUNCTION	: OSC
FREQUENCY RANGE	: X100
FREQUENCY	: 1000Hz
OUTPUT MODE	: A

Input

FUNCTION	: LM
INPUT IMPEDANCE	: 10KΩ
FILTER	: FLAT
LM/DM RANGE	: AUTO

No.	Confirmation Item	MIC Switch (ON/OFF) See Fig. 1 and 2.		MIC Mode Switch (CM/DM) See Fig 3 and 4.		Setting for Audio Analyzer (Output Side)			Input Signal / Input Connector	Measuring Point	Specification
		AJ-RC905	AJ-CA905	In side of AJ-RC905	In side of AJ-CA905	LOAD	OUT LEVEL	LEVEL METER			
3-1	Audio Output Level Confirmation	OFF	OFF	CM	CM	ON	-40	+0.8	-39.2dBu, 1KHz To CAMERA/VTR FRONT MIC	AUDIO OUTPUT on Rear Panel of AJ-RC905	-20dBu±1.5dB
3-2	RCU INCOM → Communication Level Confirmation	ON	OFF	CM	CM	OFF	0	-7	-7dBu, 1KHz To AJ-RC905 INCOM (MIC)	INCOM OUT on Rear Panel of AJ-RC905	0dBu±1.5dB
3-3	RCU INCOM → Communication Level Confirmation	ON	OFF	DM	CM	OFF	-50	-4	-54dBu, 1KHz To AJ-RC905 INCOM (MIC)	INCOM OUT on Rear Panel of AJ-RC905	0dBu±1.5dB
3-4	CA INCOM → Communication Level Confirmation (1)	OFF	ON	CM	CM	OFF	0	-7	-7dBu, 1KHz To AJ-CA905 INCOM (MIC)	INCOM OUT on Rear Panel of AJ-RC905	0dBu±1.5dB
3-5	CA INCOM → Communication Level Confirmation (2)	OFF	ON	CM	DM	OFF	-50	-4	-54dBu, 1KHz To AJ-CA905 INCOM (MIC)	INCOM OUT on Rear Panel of AJ-RC905	0dBu±1.5dB
3-6	Communication →RCU INCOM Level Confirmation (1)	OFF	OFF	CM	CM	ON	0	0	0dBu, 1KHz To AJ-RC905 COMM. INCOM IN	Refer to the next page for more detailed information.	
3-7	Communication →RCU INCOM Level Confirmation (2)	OFF	OFF	CM	CM	ON	0	0	0dBu, 1KHz To AJ-RC905 COMM. PGM IN		
3-8	Communication → CA INCOM Level Confirmation (1)	OFF	OFF	CM	CM	ON	0	0	0dBu, 1KHZ AJ-RC905 COMM. INCOM IN		
3-9	Communication → CA INCOM Level Confirmation (2)	OFF	OFF	CM	CM	ON	0	0	0dBu, 1KHz To AJ-RC905 COMM. PGM IN		
3-10	RCU Income → CA INCOM Level Confirmation	ON	OFF	CM	CM	OFF	0	-7	-7dBu, 1KHz To AJ-RC905 INCOM (MIC)	INCOM OUT on AJ-CA905	0dBu±1.5dB
3-11	CA INCOM → RCU INCOM Level Confirmation	OFF	ON	CM	CM	OFF	0	-7	-7dBu, 1KHz To AJ-CA905 INCOM (MIC)	INCOM OUT on Front Panel of AJ-RC905	0dBu±1.5dB

3-6. COMMUNICATION → RCU INCOM Level Confirmation (1)

TP	INCOM OUT (AJ-RC905)
ADJ.	INTERCOM DIAL (AJ-RC905)
SPEC.	0dbu±0.5dB

1. Adjust the INTERCOM DIAL on the Front Panel of AJ-RC905 so that the Audio Level is in the specification.

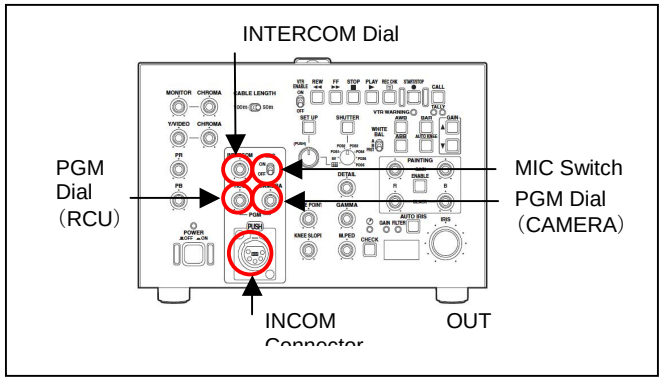


Fig. 1 Parts Location on AJ-RC905

3-7. COMMUNICATION → RCU INCOM Level Confirmation (2)

TP	INCOM OUT (AJ-RC905)
ADJ.	PGM/RCU DIAL (AJ-RC905)
SPEC.	0dbu±0.5dB

1. Adjust the PGM/RCU DIAL on the Front Panel of AJ-RC905 so that the Audio Level is in the specification.

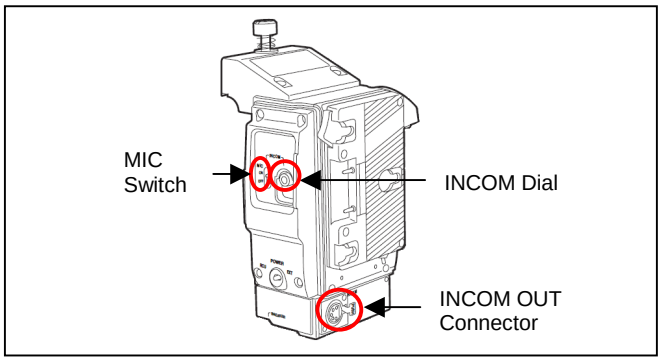


Fig. 2 Parts Location on AJ-CA905

3-8. COMMUNICATION → CA INCOM Level Confirmation (1)

TP	INCOM OUT (AJ-CA905)
ADJ.	INCOM DIAL (AJ-CA905)
SPEC.	0dbu±0.5dB

1. Adjust the INCOM DIAL on the AJ-CA905 so that the Audio Level is in the specification.

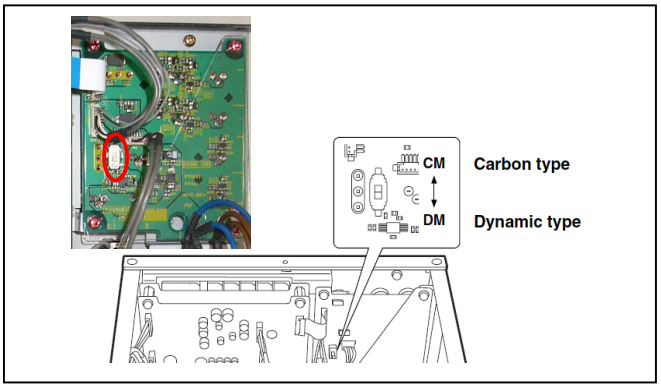


Fig. 3 MIC Mode Switch Location on AJ-RC905

3-9. COMMUNICATION → CA INCOM Level Confirmation (2)

TP	INCOM OUT (AJ-CA905)
ADJ.	PGM/CAMERA DIAL (AJ-RC905)
SPEC.	0dbu±0.5dB

1. Adjust the PGM/CAMERA DIAL on the Front Panel of AJ-RC905 so that the Audio Level is in the specification.

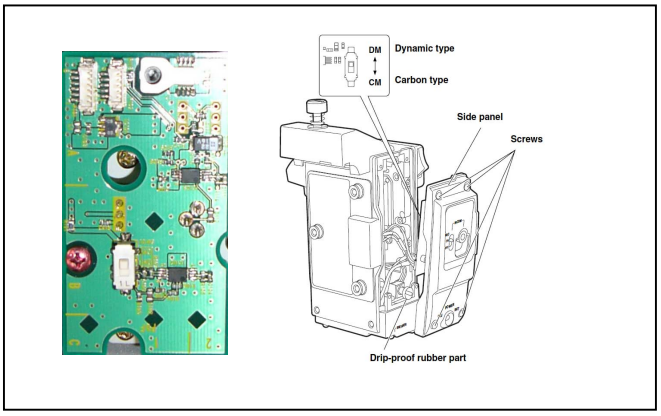
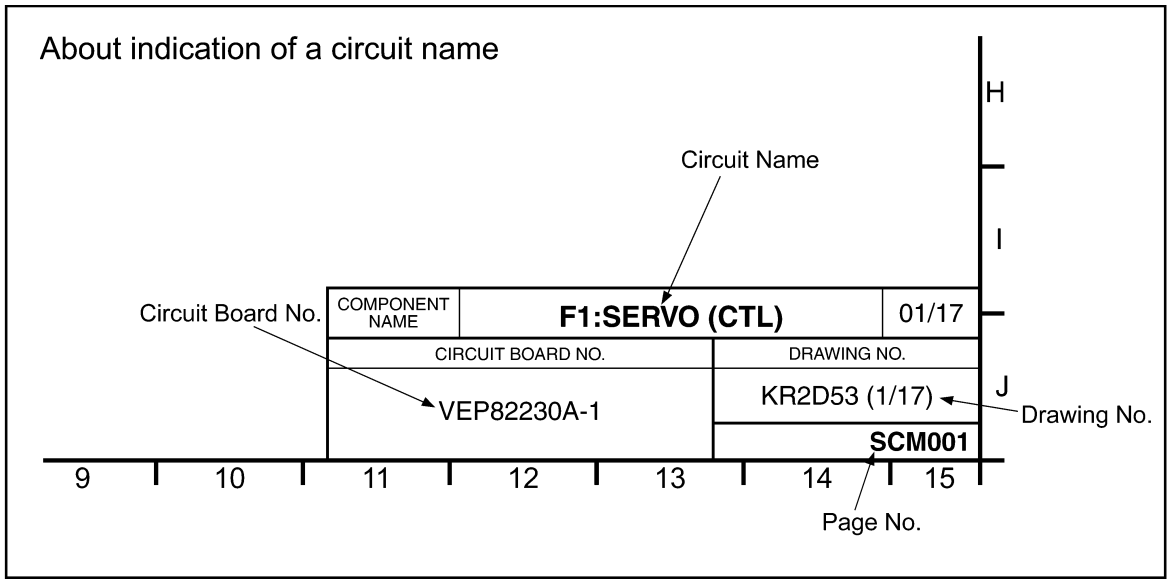


Fig. 4 MIC Mode Switch Location on AJ-RC905

SECTION 3

BLOCK DIAGRAMS
PARTS LOCATION TABLE
SCHEMATIC DIAGRAMS



NOTE:
BE SURE TO MAKE YOUR ORDERS OF REPLACEMENT PARTS ACCORDING TO PARTS LIST, SECTION 4

CAUTION

THE ▭ MARK INDICATES THE PRIMARY CIRCUIT TO DISTINGUISH THE PRIMARY FROM THE SECONDARY CIRCUIT.
PAY ATTENTION NOT TO RECEIVE AN ELECTRIC SHOCK DURING REPAIR AND SERVICE OF THE PRODUCTS.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

CONTENTS

BLOCK DIAGRAMS

SYSTEM BLOCK DIAGRAM BLK-1

FRONT BLOCK DIAGRAM (AJ-RC905) BLK-2

PARTS LOCATION TABLE

<< AJ-RC905 >>

MAIN P.C.BOARD (VEP20B02A) CBA-1

FRONT SUB P.C.BOARD (VEP20B03A) CBA-1

FRONT P.C.BOARD (VEP20819C) CBA-1

<< AJ-CA905G >>

CA_MAIN P.C.BOARD (VEP20A99A) CBA-2

CA_INCOM P.C.BOARD (VEP20B00A) CBA-2

SCHEMATIC DIAGRAMS

<< AJ-RC905 >>

OVERALL SCM001

MAIN SCM002

FRONT SUB SCM006

REAR BNC SCM008

AUDIO CNT SCM009

AC FIL SCM010

FRONT SCM011

<< AJ-CA905G >>

CA_OVERALL SCM012

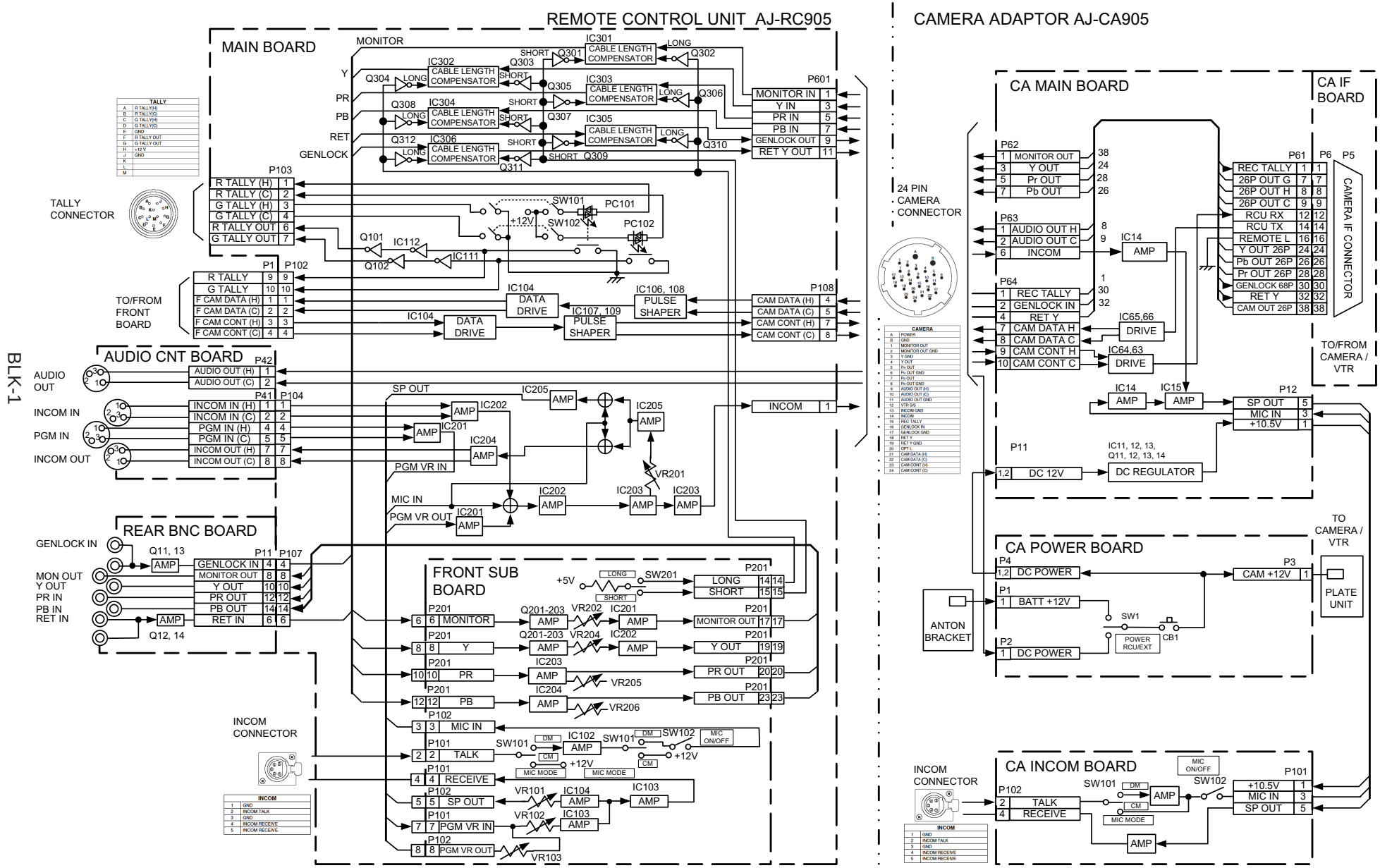
CA_MAIN SCM013

CA_INCOM SCM015

CA_POWER SCM016

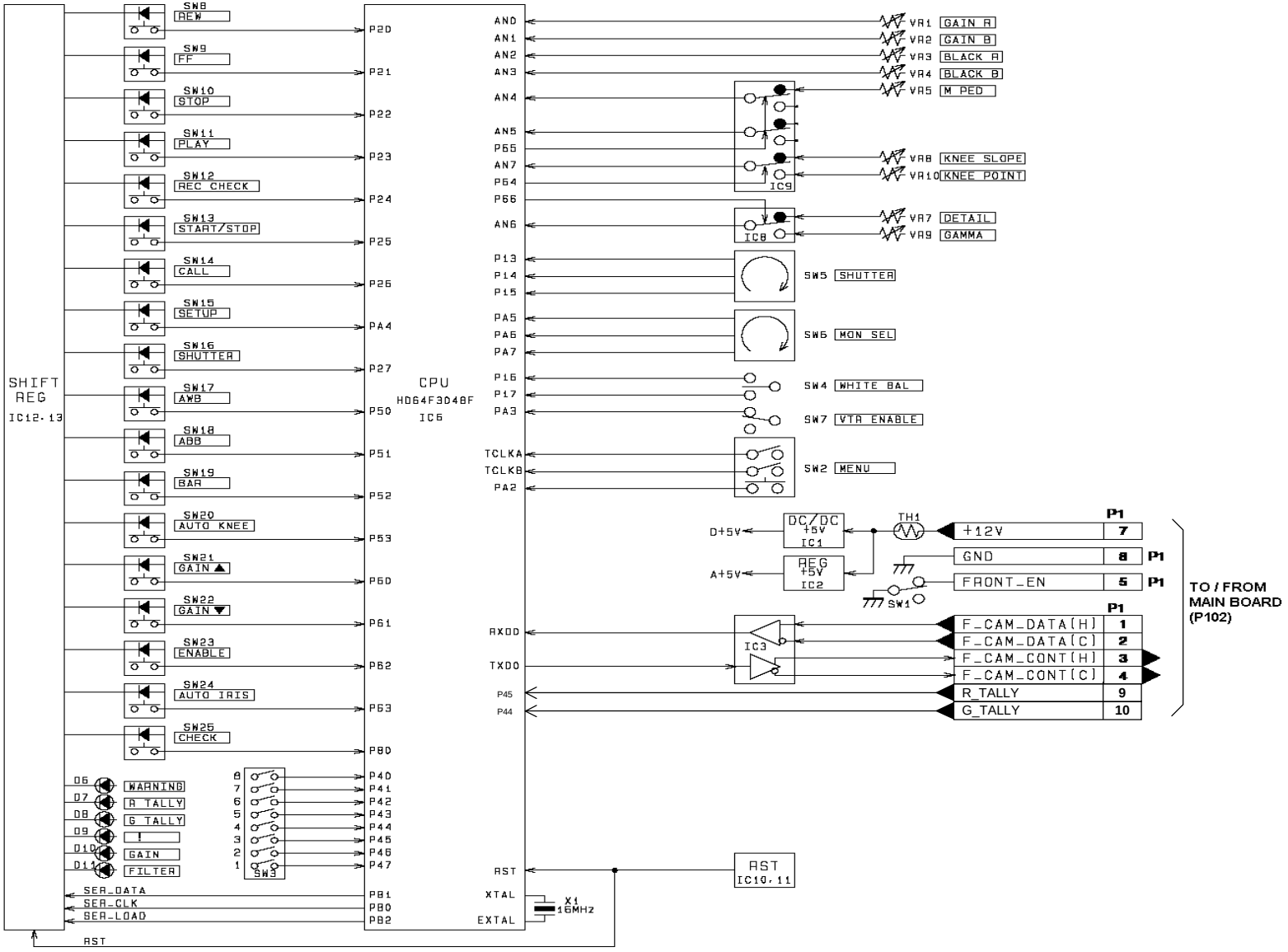
CA_IF SCM017

SYSTEM BLOCK DIAGRAM



BLK-1

FRONT BLOCK DIAGRAM (AJ-RC905)



<< AJ-RC905 >>
MAIN P.C.BOARD (VEP20B02A)

COMPONENT SIDE

REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC
IC101	A1	IC451	B4	P105	C1	Q101	A1	Q309	D4	QR455	A3	TP305	C4
IC105	A1	IC452	B3	P106	C4	Q103	B1	Q311	D3	SW101	A3	TP306	C3
IC110	A1	IC453	B3	P107	D3	Q104	A2	Q451	A3	SW102	A3		
IC301	C3	P101	A2	P108	A2	Q301	C3	Q455	A3	TP301	C3		
IC302	C2	P102	A1	P109	D1	Q303	C2	QR101	B2	TP302	C2		
IC303	C3	P103	A3	P451	B4	Q305	C3	QR102	B2	TP303	C3		
IC304	C2	P104	B4	P452	A4	Q307	C2	QR451	A3	TP304	C2		

FOIL SIDE

REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC
IC102	A1	IC109	A2	IC204	B1	IC455	B4	Q302	C3	Q451	A3	QR452	A3
IC104	A1	IC111	A3	IC205	B1	IC456	A4	Q304	C2	Q452	A4	QR454	A3
IC105	A2	IC112	A3	IC206	B2	PC101	A3	Q306	C3	Q453	A4		
IC106	A2	IC201	B2	IC305	D3	PC102	A3	Q308	C2	Q454	A4		
IC107	A2	IC202	B2	IC306	D3	Q101	A3	Q310	D4	Q455	B3		
IC108	A2	IC203	B2	IC454	B3	Q102	A3	Q312	D3	QR103	A2		

FRONT SUB P.C.BOARD (VEP20B03A)

COMPONENT SIDE

REF	LOC	REF	LOC
SW102	C2	VR202	A1
SW201	B1	VR203	B2
VR101	B2	VR204	A2
VR102	B3	VR205	A2
VR103	C3	VR206	A3
VR201	B1		

FOIL SIDE

REF	LOC	REF	LOC	REF	LOC
IC101	B2	IC203	A2	Q202	B1
IC102	B3	IC204	A3	Q203	A1
IC103	B3	P101	B2	Q204	B2
IC104	B3	P102	C2	Q205	B1
IC201	A1	P201	C1	Q206	A2
IC202	A2	Q201	B1	SW101	C2

FRONT P.C.BOARD (VEP20819C)

COMPONENT SIDE

REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC
P4	A3	SW7	D1	SW12	D2	SW17	C3	SW22	C4	VR2	B3	VR7	B2
SW2	C1	SW8	D1	SW13	D3	SW18	C3	SW23	B3	VR3	B3	VR8	B1
SW4	C2	SW9	D1	SW14	D3	SW19	C3	SW24	B3	VR4	B4	VR9	B2
SW5	C1	SW10	D2	SW15	C1	SW20	C3	SW25	A2	VR5	A2	VR10	A1
SW6	B1	SW11	D2	SW16	C1	SW21	D2	VR1	C3	VR6	A4		

FOIL SIDE

REF	LOC	REF	LOC	REF	LOC	REF	LOC	REF	LOC
IC1	A4	IC6	B2	IC11	B3	P3	B2	SW1	D4
IC2	A4	IC7	A3	IC12	C2	Q2	A2	SW3	B1
IC3	B3	IC8	B2	IC13	C2	Q3	A3		
IC4	B2	IC9	A2	P1	B4	Q4	A3		
IC5	B2	IC10	B3	P2	B1	Q5	A3		

<< AJ-CA905G >>
CA_MAIN P.C.BOARD (VEP20A99A)

COMPONENT SIDE

REF	LOC	REF	LOC	REF	LOC
IC14	C1	IC66	C2	Q66	C2
IC15	C1	P11	A1	VR11	B1
IC61	C1	P61	D2		
IC62	C1	Q14	B1		
IC64	C2	Q62	C2		

FOIL SIDE

REF	LOC	REF	LOC	REF	LOC
IC11	A1	P12	B1	Q12	A2
IC12	A1	P62	C2	Q61	C2
IC13	B2	P63	B2	Q65	C2
IC63	C2	P64	B2		
IC65	C2	Q11	A1		

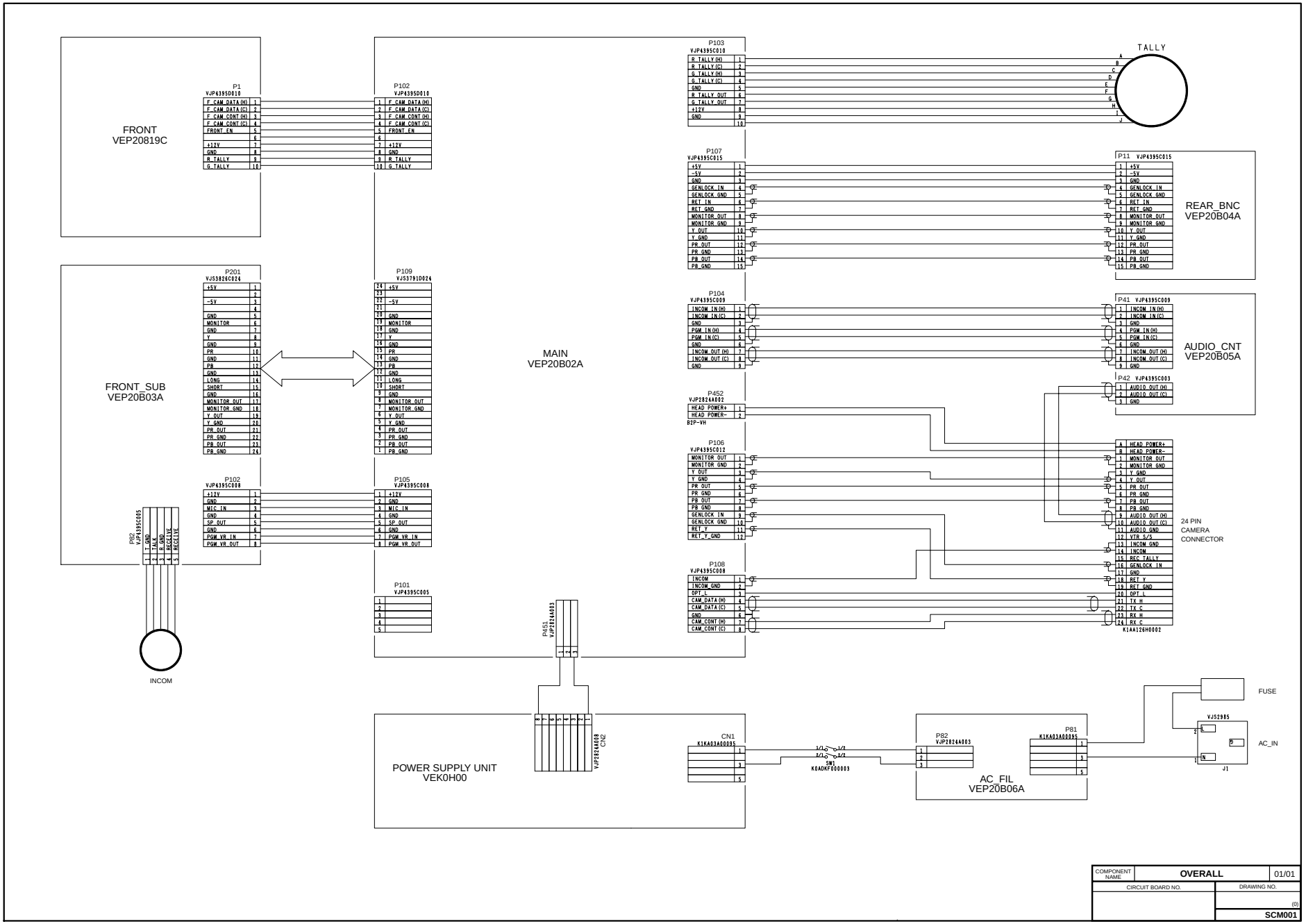
CA_INCOM P.C.BOARD (VEP20B00A)

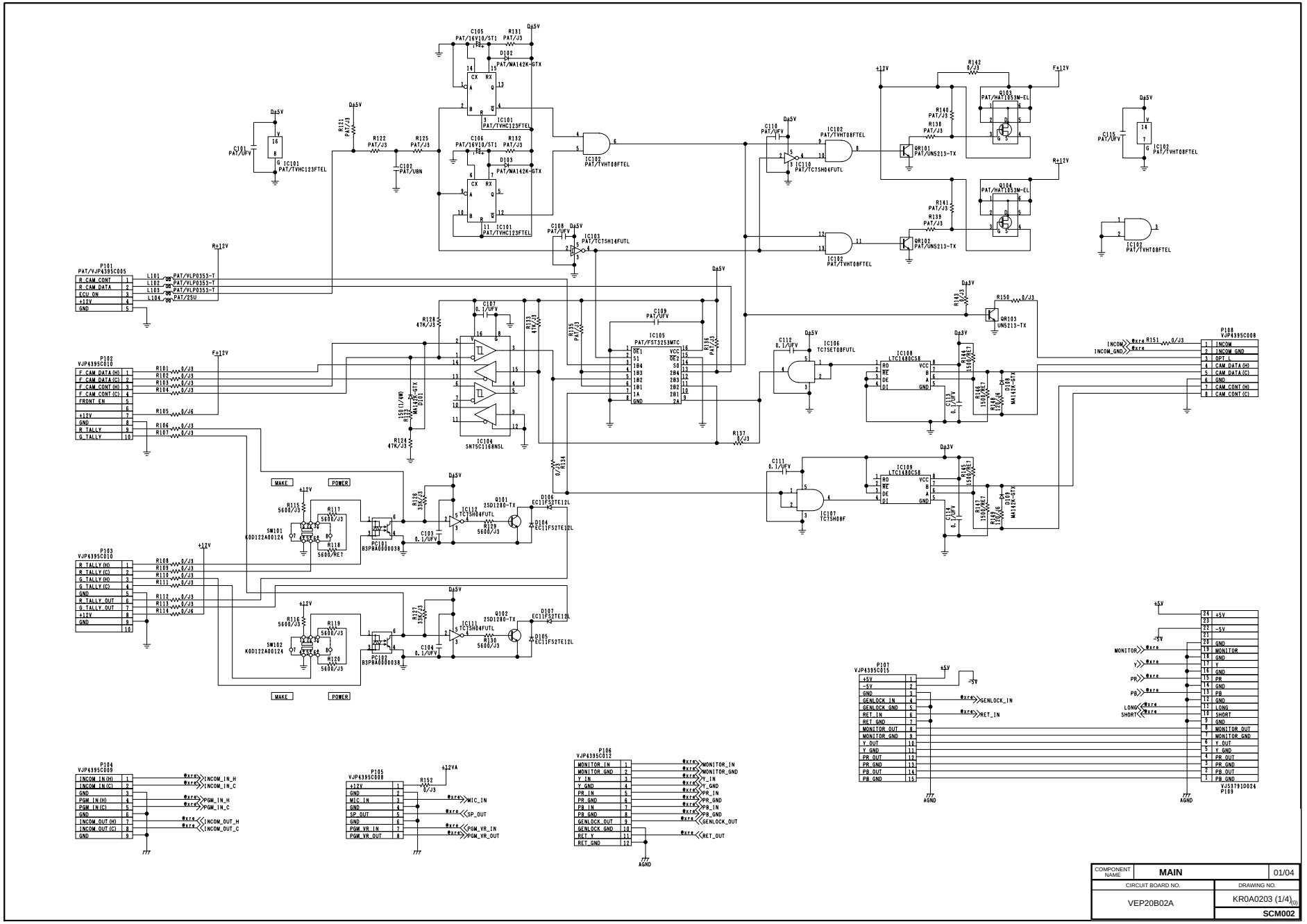
COMPONENT SIDE

REF	LOC
SW102	B1
VR101	B2

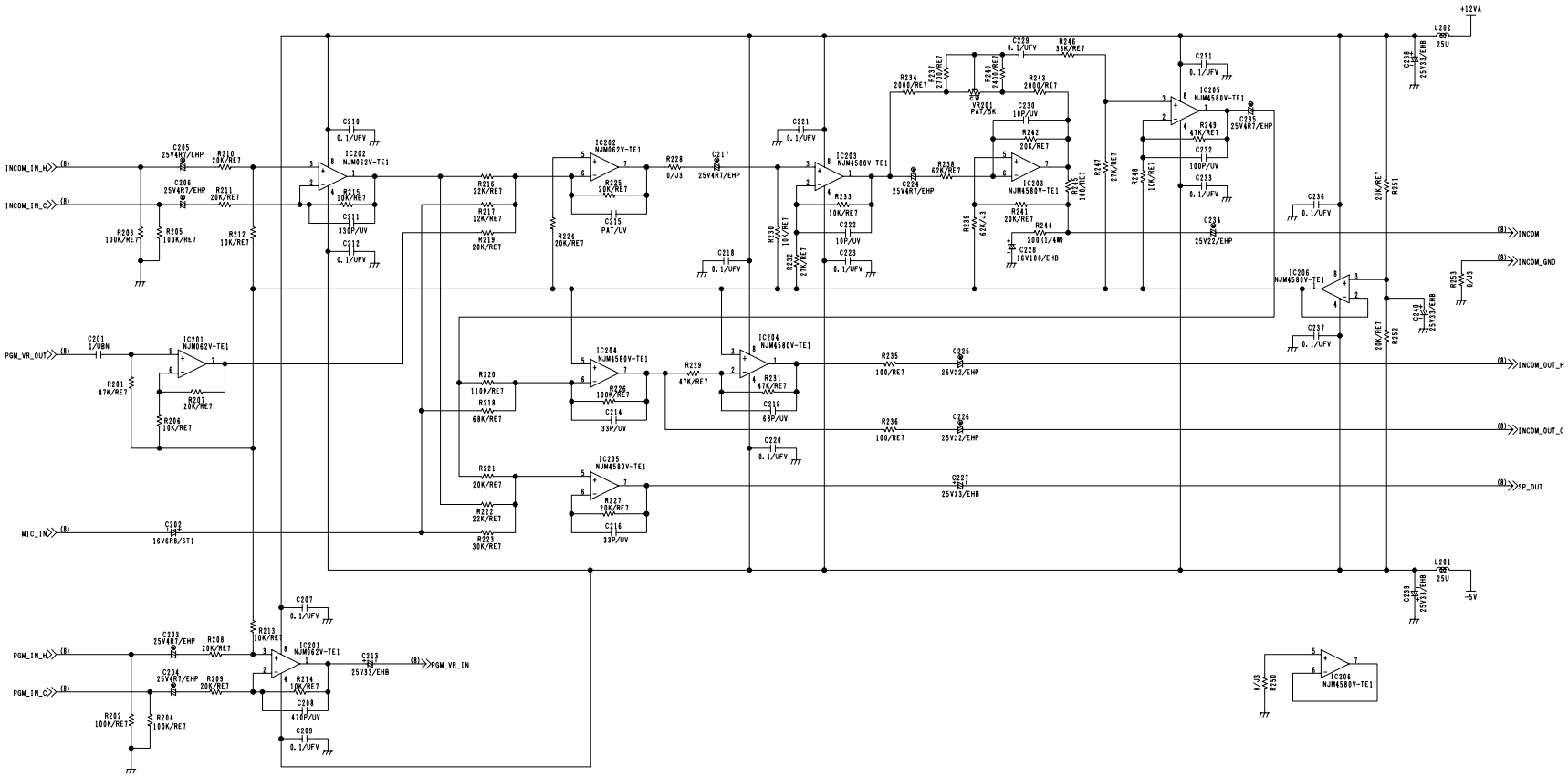
FOIL SIDE

REF	LOC
IC101	A1
IC102	B1
IC103	A2
P101	A1
P102	A1
SW101	B1

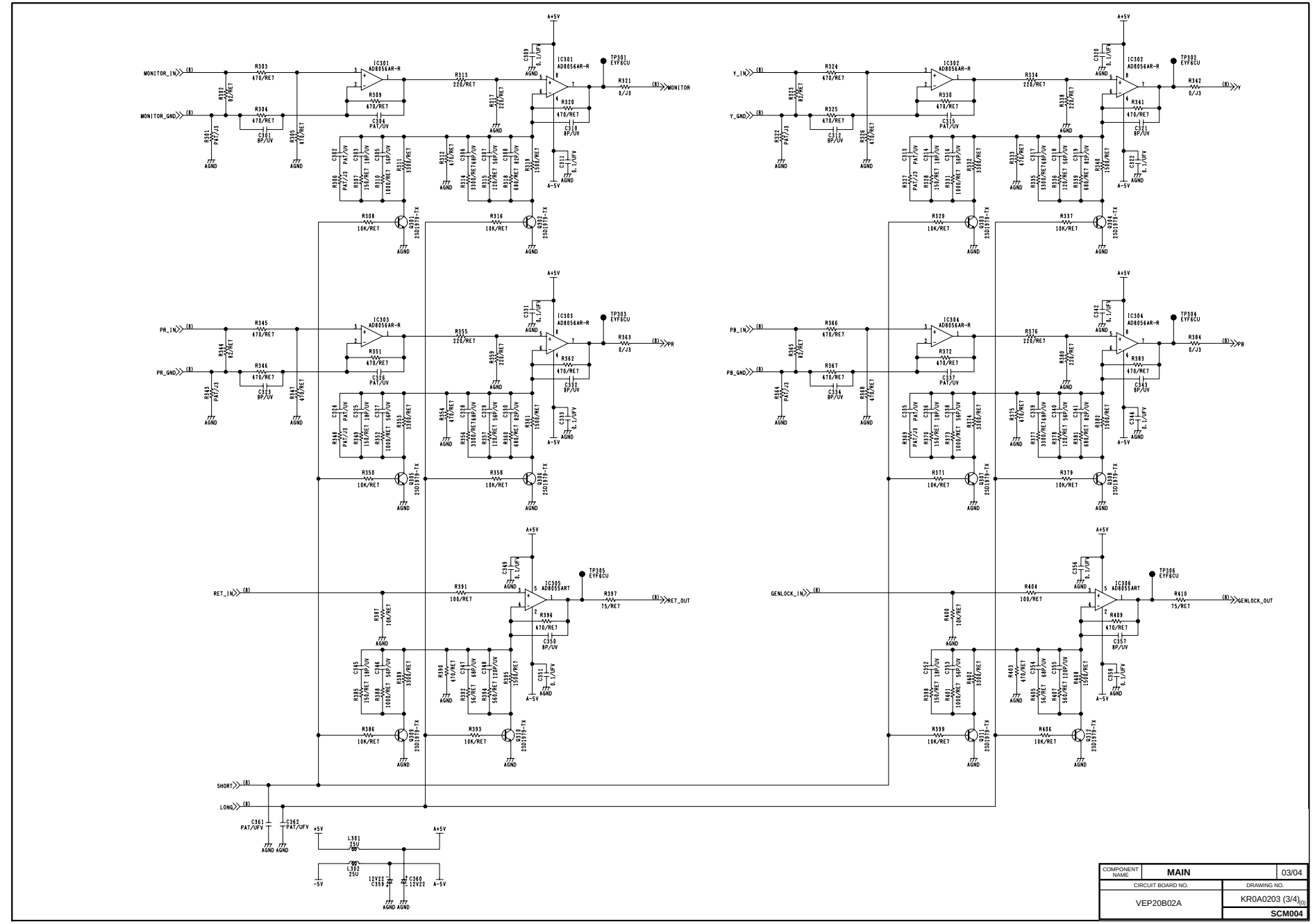

FRONT
VEP20819C
FRONT_SUB
VEP20B03A
MAIN
VEP20B02A
POWER SUPPLY UNIT
VEK0H00
AC_FIL
VEP20B06A
REAR_BNC
VEP20B04A
AUDIO_CNT
VEP20B05A
TALLY
INCOM
24 PIN
CAMERA
CONNECTOR
FUSE
AC_IN
P1
P102
P103
P107
P11
P104
P41
P42
P452
P106
P108
P109
P201
P105
P101
P451
CN1
P82
P81
J1
COMPONENT NAME
OVERALL
01/01
CIRCUIT BOARD NO.
DRAWING NO.
SCM001

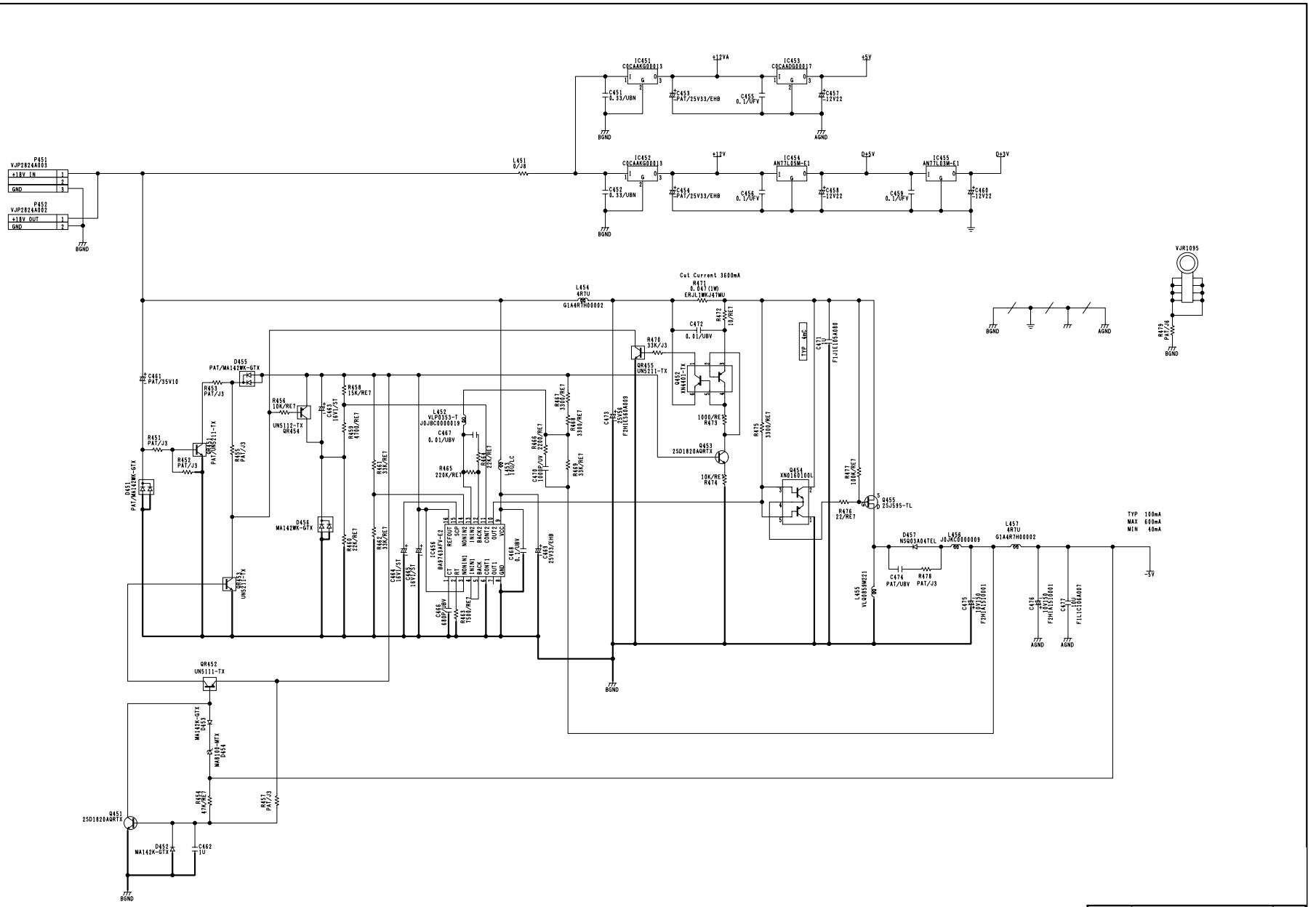


COMPONENT NAME	MAIN	01/04
CIRCUIT BOARD NO.	DRAWING NO.	
VEP20B02A	KR0A0203 (1/4)(0)	
	SCM002	

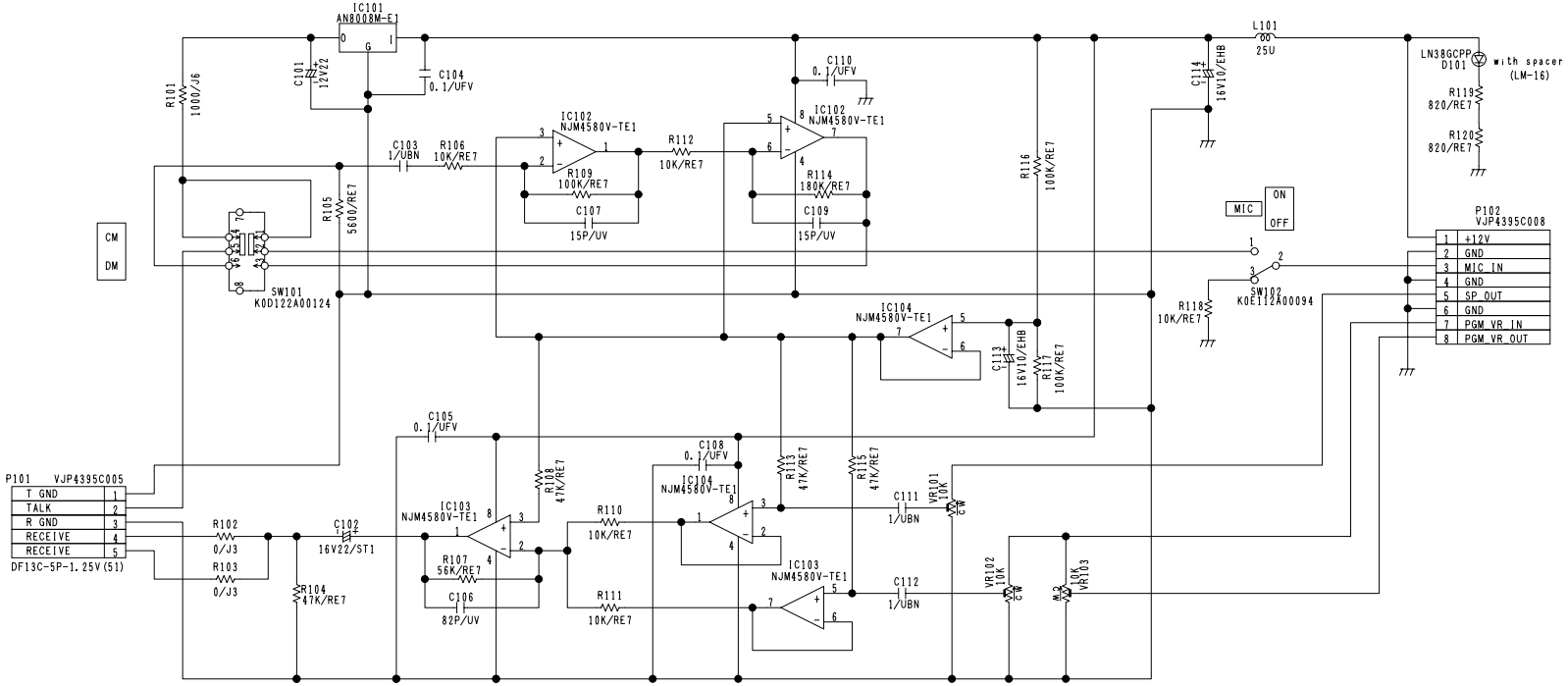


COMPONENT NAME	MAIN	02/04
CIRCUIT BOARD NO.		DRAWING NO.
VEP20B02A		KR0A0203 (2/4)(0)
		SCM003

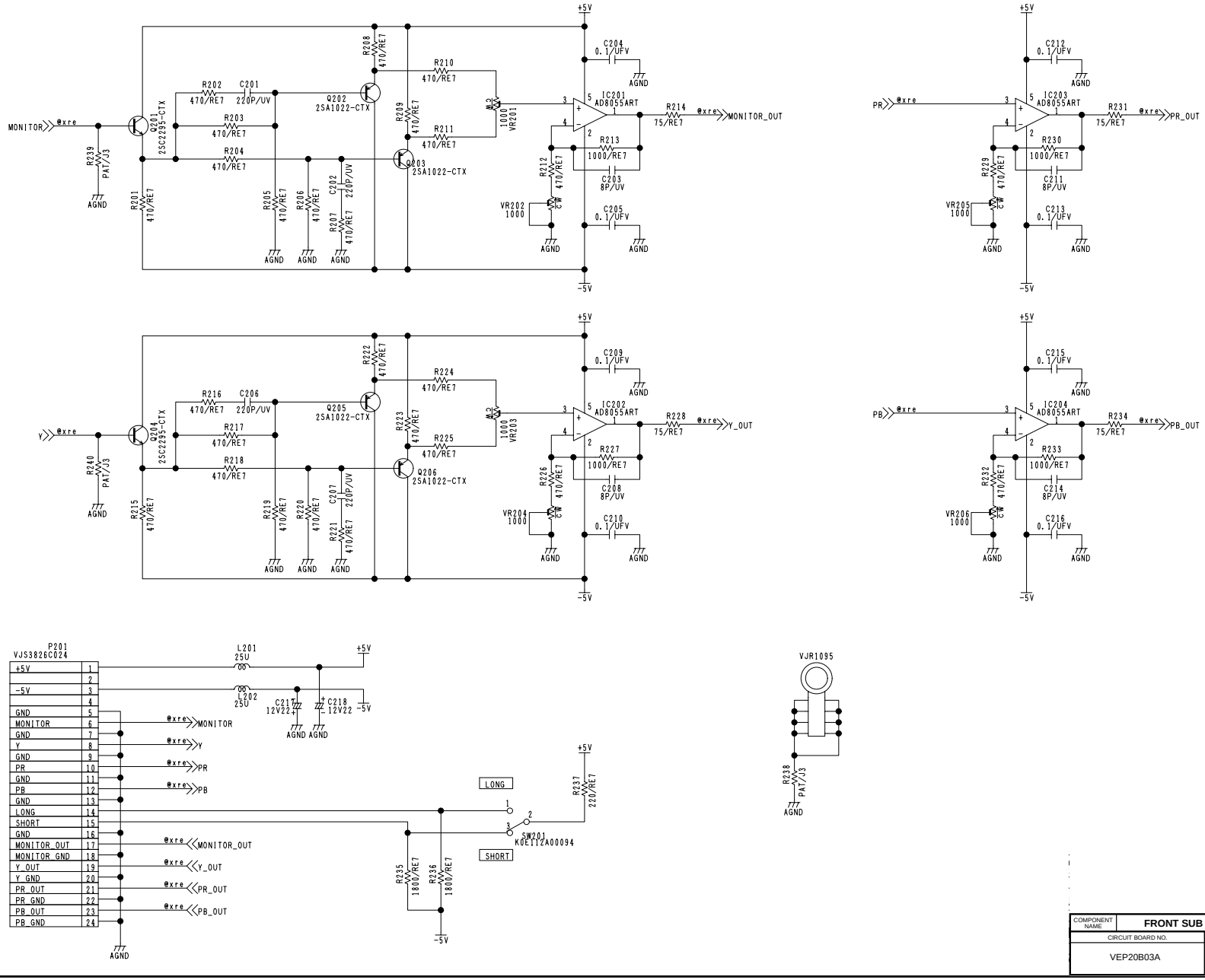

MONITOR_IN
MONITOR_GND
IC301 AD8056AR-R
IC301 AD8056AR-R
TP301 EYF6CU
MONITOR
Y_IN
Y_GND
IC302 AD8056AR-R
IC302 AD8056AR-R
TP302 EYF6CU
Y
PR_IN
PR_GND
IC303 AD8056AR-R
IC303 AD8056AR-R
TP303 EYF6CU
PR
PB_IN
PB_GND
IC304 AD8056AR-R
IC304 AD8056AR-R
TP304 EYF6CU
PB
RET_IN
IC305 AD8055ART
TP305 EYF6CU
RET_OUT
GENLOCK_IN
IC306 AD8055ART
TP306 EYF6CU
GENLOCK_OUT
SHORT
LONG
A+5V
A-5V
AGND
2SD1979-TX
COMPONENT NAME
MAIN
03/04
CIRCUIT BOARD NO.
VEP20B02A
DRAWING NO.
KR0A0203 (3/4)(0)
SCM004



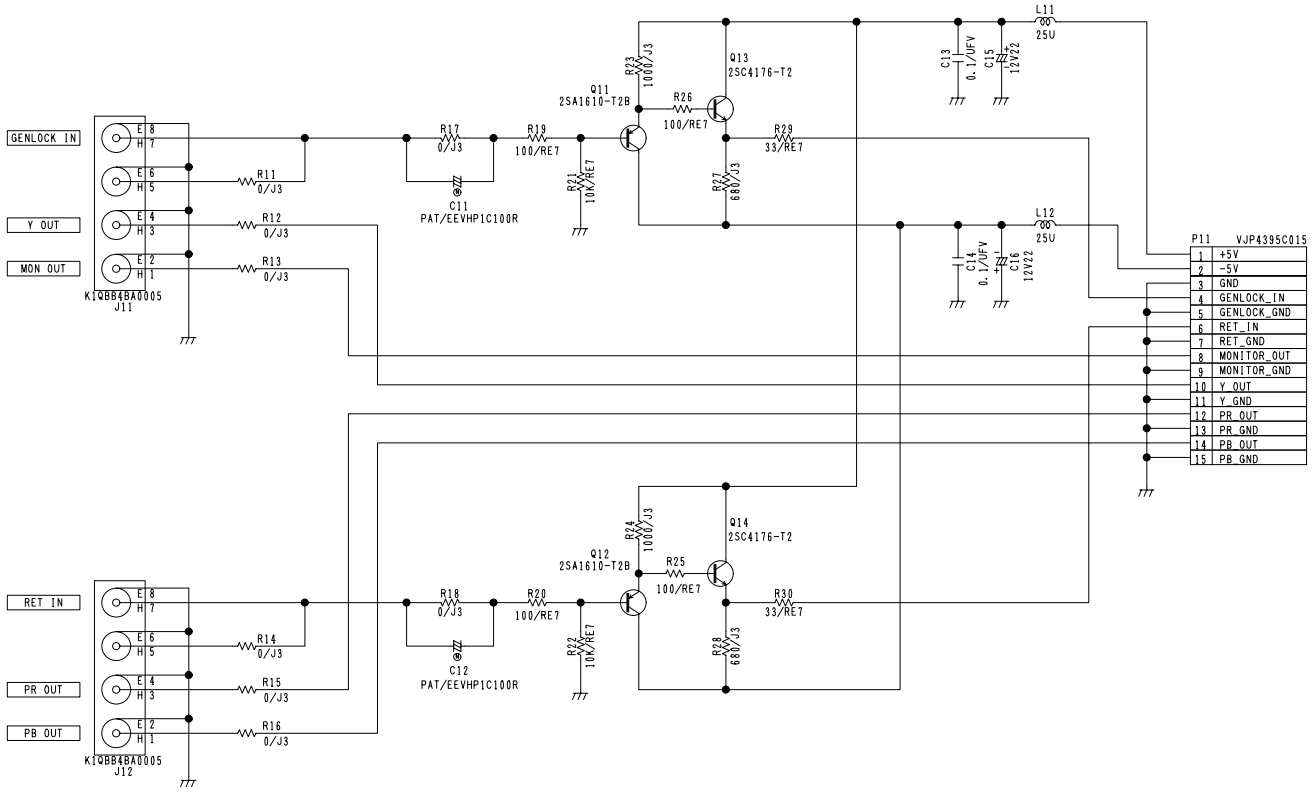
COMPONENT NAME	MAIN	04/04
CIRCUIT BOARD NO.		DRAWING NO.
VEP20B02A		KR0A0203 (4/4)(0)
		SCM005



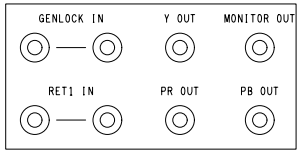
COMPONENT NAME	FRONT SUB	01/02
CIRCUIT BOARD NO.		DRAWING NO.
VEP20B03A		KR0A0204 (1/2)(1)
		SCM006



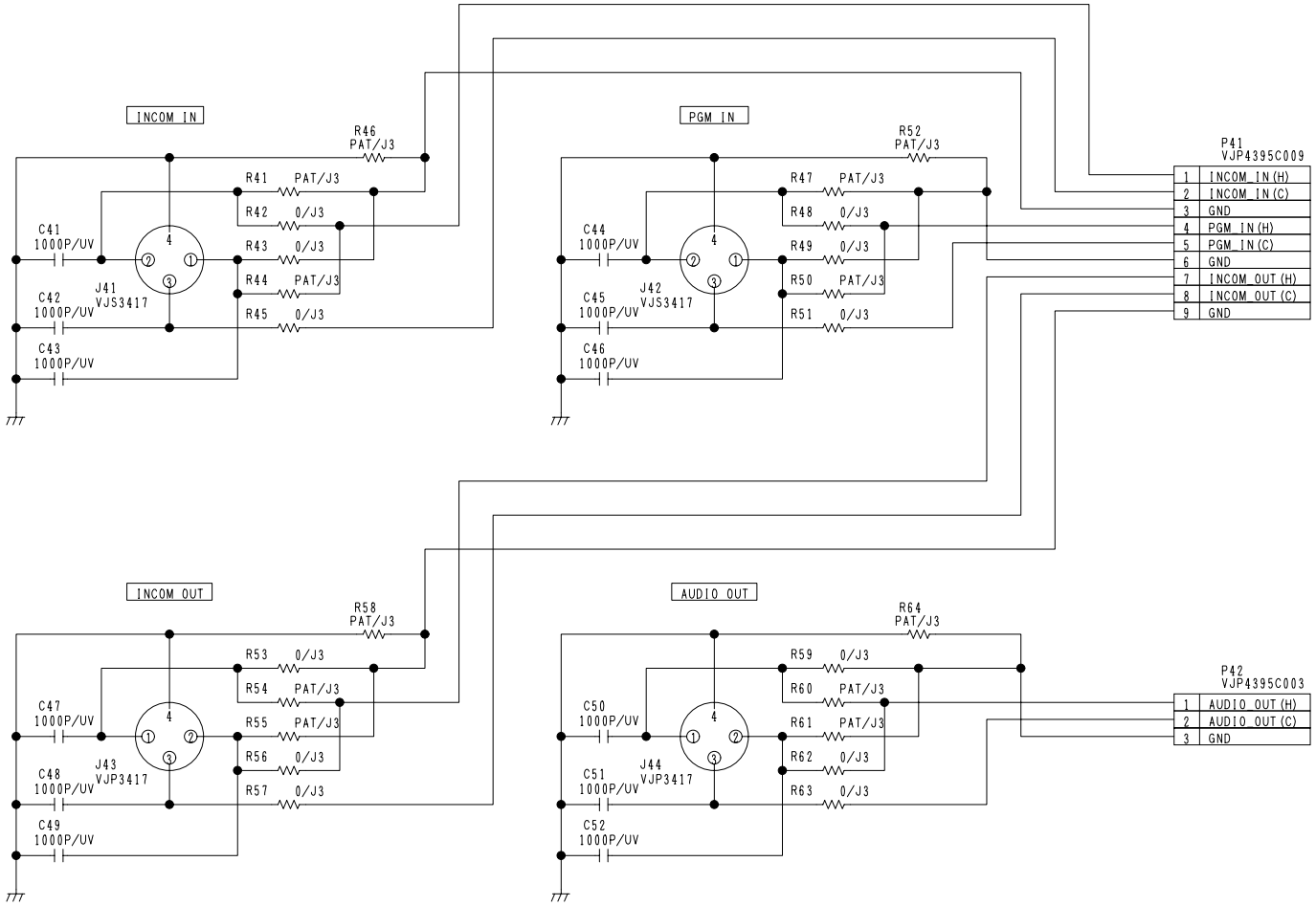
COMPONENT NAME	FRONT SUB	02/02
CIRCUIT BOARD NO.		DRAWING NO.
VEP20B03A		KR0A0204 (2/2)(1)
		SCM007



REAR PANEL VEW

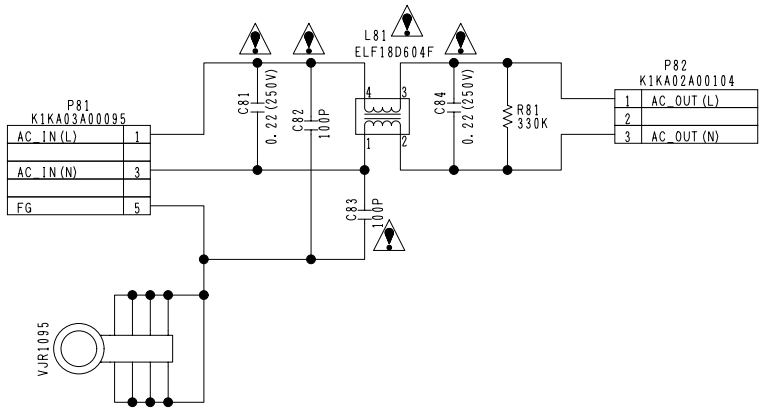


COMPONENT NAME	REAR BNC	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP20B04A		KR0A0205 (1/1)(0)
		SCM008



PAT=PATTERN ON

COMPONENT NAME	AUDIO CNT	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP20B05A		KR0A0206 (1/1)(0)
		SCM009



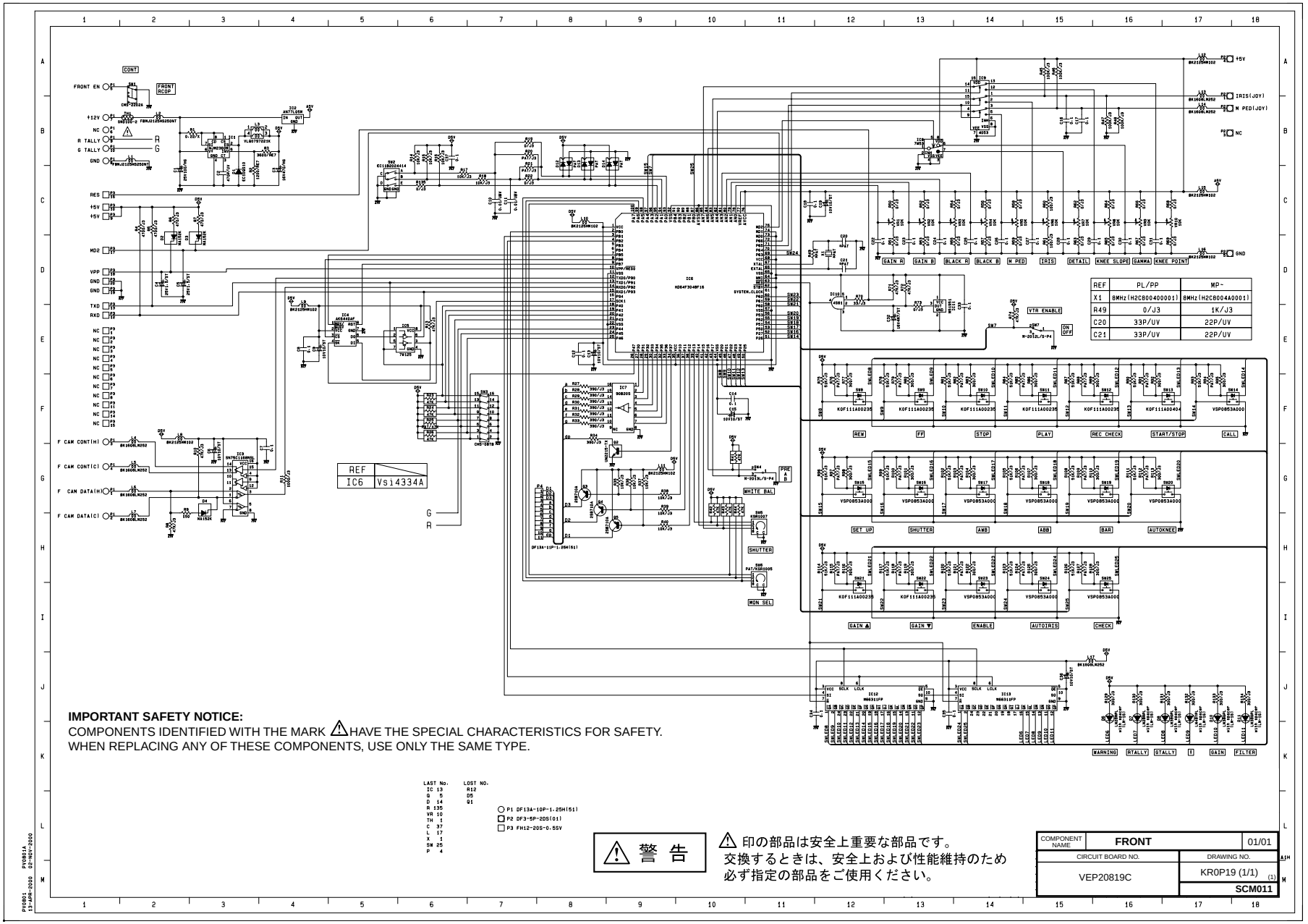
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

⚠ 警 告

⚠ 印の部品は安全上重要な部品です。
交換するときは、安全上および性能維持のため
必ず指定の部品をご使用ください。

PAT=PATTERN ONLY

COMPONENT NAME	AC FIL	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP20B06A		KR0A0207 (1/1)(0)
		SCM010



REF	PL/PP	MP-
X1	8MHz(H2CB00400001)	8MHz(H2CB0044A0001)
R49	0/J3	1K/J3
C20	33P/UV	22P/UV
C21	33P/UV	22P/UV

REF	
IC6	Vsi4334A

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

LAST No.	LOST NO.
IC 13	R12
Q 5	D5
D 14	Q1
R 135	
VR 10	
TH 1	
C 37	
L 17	
X 1	
SW 25	
P 4	

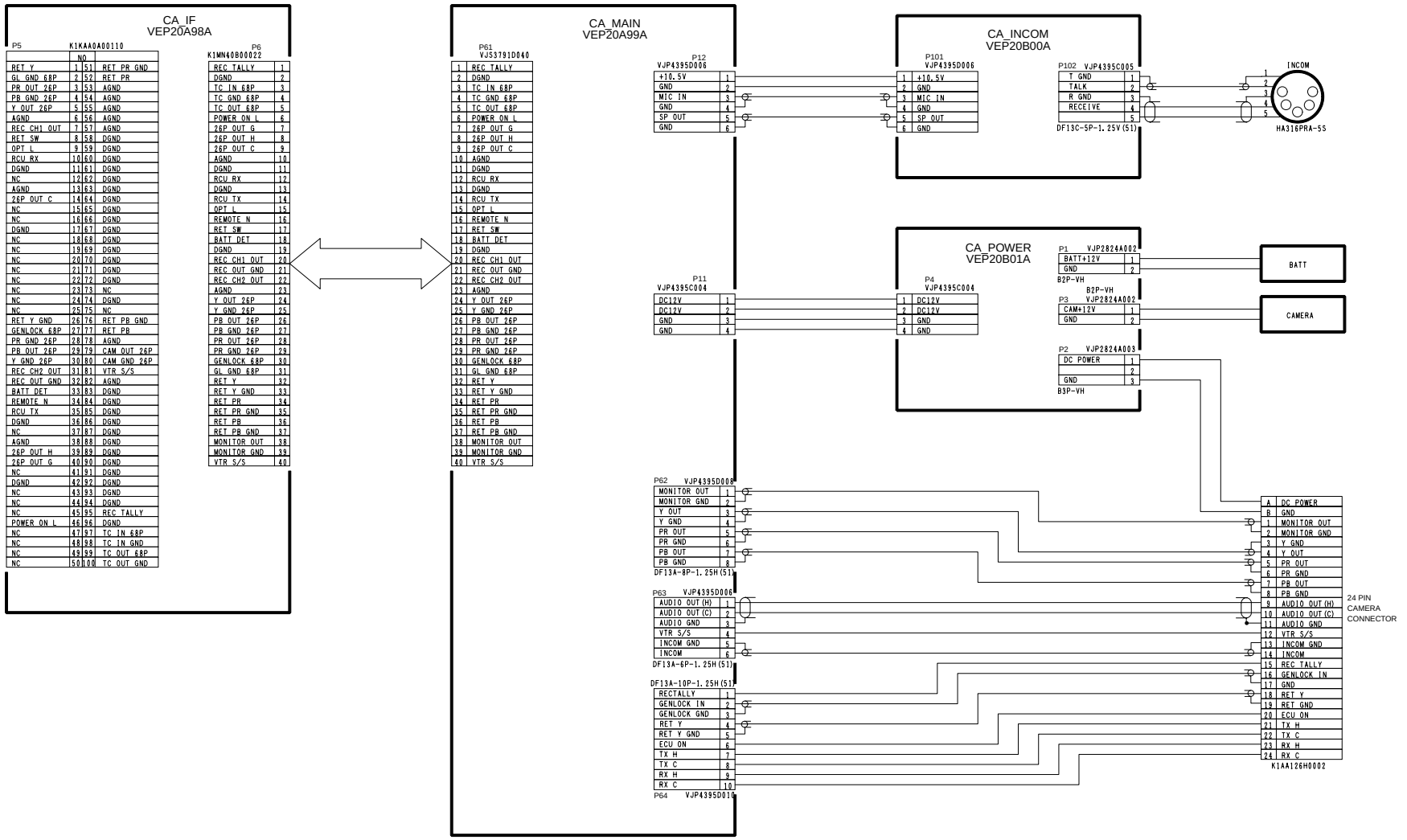
○ P1 DF13A-10P-1.25H(51)
□ P2 DF3-5P-2DS(01)
□ P3 PH12-2DS-0.5SV

⚠ 警 告

⚠ 印の部品は安全上重要な部品です。
交換するときは、安全上および性能維持のため
必ず指定の部品をご使用ください。

COMPONENT NAME	FRONT	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP20819C		KR0P19 (1/1) (1)
		SCM011

PV0801A
02-NOV-2000
PV0801
15-APR-2000



P5	K1KAA0A00110			P6	K1MN40B00022	
	NO					
RET Y	1	51	RET PR GND	REC TALLY	1	
GL GND 68P	2	52	RET PR	DGND	2	
PR OUT 26P	3	53	AGND	TC IN 68P	3	
PB GND 26P	4	54	AGND	TC GND 68P	4	
Y OUT 26P	5	55	AGND	TC OUT 68P	5	
AGND	6	56	AGND	POWER ON L	6	
REC CH1 OUT	7	57	AGND	26P OUT G	7	
RET SW	8	58	DGND	26P OUT H	8	
OPT L	9	59	DGND	26P OUT C	9	
RCU RX	10	60	DGND	AGND	10	
DGND	11	61	DGND	DGND	11	
NC	12	62	DGND	RCU RX	12	
AGND	13	63	DGND	DGND	13	
26P OUT C	14	64	DGND	RCU TX	14	
NC	15	65	DGND	OPT L	15	
NC	16	66	DGND	REMOTE N	16	
DGND	17	67	DGND	RET SW	17	
NC	18	68	DGND	BATT DET	18	
NC	19	69	DGND	DGND	19	
NC	20	70	DGND	REC CH1 OUT	20	
NC	21	71	DGND	REC OUT GND	21	
NC	22	72	DGND	REC CH2 OUT	22	
NC	23	73	NC	AGND	23	
NC	24	74	DGND	Y OUT 26P	24	
NC	25	75	NC	Y GND 26P	25	
RET Y GND	26	76	RET PB GND	PB OUT 26P	26	
GENLOCK 68P	27	77	RET PB	PB GND 26P	27	
PR GND 26P	28	78	AGND	PR OUT 26P	28	
PB OUT 26P	29	79	CAM OUT 26P	PR GND 26P	29	
Y GND 26P	30	80	CAM GND 26P	GENLOCK 68P	30	
REC CH2 OUT	31	81	VTR S/S	GL GND 68P	31	
REC OUT GND	32	82	AGND	RET Y	32	
BATT DET	33	83	DGND	RET Y GND	33	
REMOTE N	34	84	DGND	RET PR	34	
RCU TX	35	85	DGND	RET PR GND	35	
DGND	36	86	DGND	RET PB	36	
NC	37	87	DGND	RET PB GND	37	
AGND	38	88	DGND	MONITOR OUT	38	
26P OUT H	39	89	DGND	MONITOR GND	39	
26P OUT G	40	90	DGND	VTR S/S	40	
NC	41	91	DGND			
DGND	42	92	DGND			
NC	43	93	DGND			
NC	44	94	DGND			
NC	45	95	REC TALLY			
POWER ON L	46	96	DGND			
NC	47	97	TC IN 68P			
NC	48	98	TC IN GND			
NC	49	99	TC OUT 68P			
NC	50	100	TC OUT GND			

P61 VJS3791D040		
1	REC TALLY	
2	DGND	
3	TC IN 68P	
4	TC GND 68P	
5	TC OUT 68P	
6	POWER ON L	
7	26P OUT G	
8	26P OUT H	
9	26P OUT C	
10	AGND	
11	DGND	
12	RCU RX	
13	DGND	
14	RCU TX	
15	OPT L	
16	REMOTE N	
17	RET SW	
18	BATT DET	
19	DGND	
20	REC CH1 OUT	
21	REC OUT GND	
22	REC CH2 OUT	
23	AGND	
24	Y OUT 26P	
25	Y GND 26P	
26	PB OUT 26P	
27	PB GND 26P	
28	PR OUT 26P	
29	PR GND 26P	
30	GENLOCK 68P	
31	GL GND 68P	
32	RET Y	
33	RET Y GND	
34	RET PR	
35	RET PR GND	
36	RET PB	
37	RET PB GND	
38	MONITOR OUT	
39	MONITOR GND	
40	VTR S/S	

P12 VJP4395D006		P101 VJP4395D006	
+10.5V	1	1	+10.5V
GND	2	2	GND
MIC IN	3	3	MIC IN
GND	4	4	GND
SP OUT	5	5	SP OUT
GND	6	6	GND

P102 VJP4395C005		
T GND	1	
TALK	2	
R GND	3	
RECEIVE	4	
	5	

DF13C-5P-1.25V(51)

P11 VJP4395C004		P4 VJP4395C004	
DC12V	1	1	DC12V
DC12V	2	2	DC12V
GND	3	3	GND
GND	4	4	GND

P1 VJP2824A002	
BATT+12V	1
GND	2

B2P-VH

P3 VJP2824A002	
CAM+12V	1
GND	2

B2P-VH

P2 VJP2824A003	
DC POWER	1
	2
GND	3

B3P-VH

P62 VJP4395D008	
MONITOR OUT	1
MONITOR GND	2
Y OUT	3
Y GND	4
PR OUT	5
PR GND	6
PB OUT	7
PB GND	8

DF13A-8P-1.25H(51)

P63 VJP4395D006	
AUDIO OUT(H)	1
AUDIO OUT(C)	2
AUDIO GND	3
VTR S/S	4
INCOM GND	5
INCOM	6

DF13A-6P-1.25H(51)

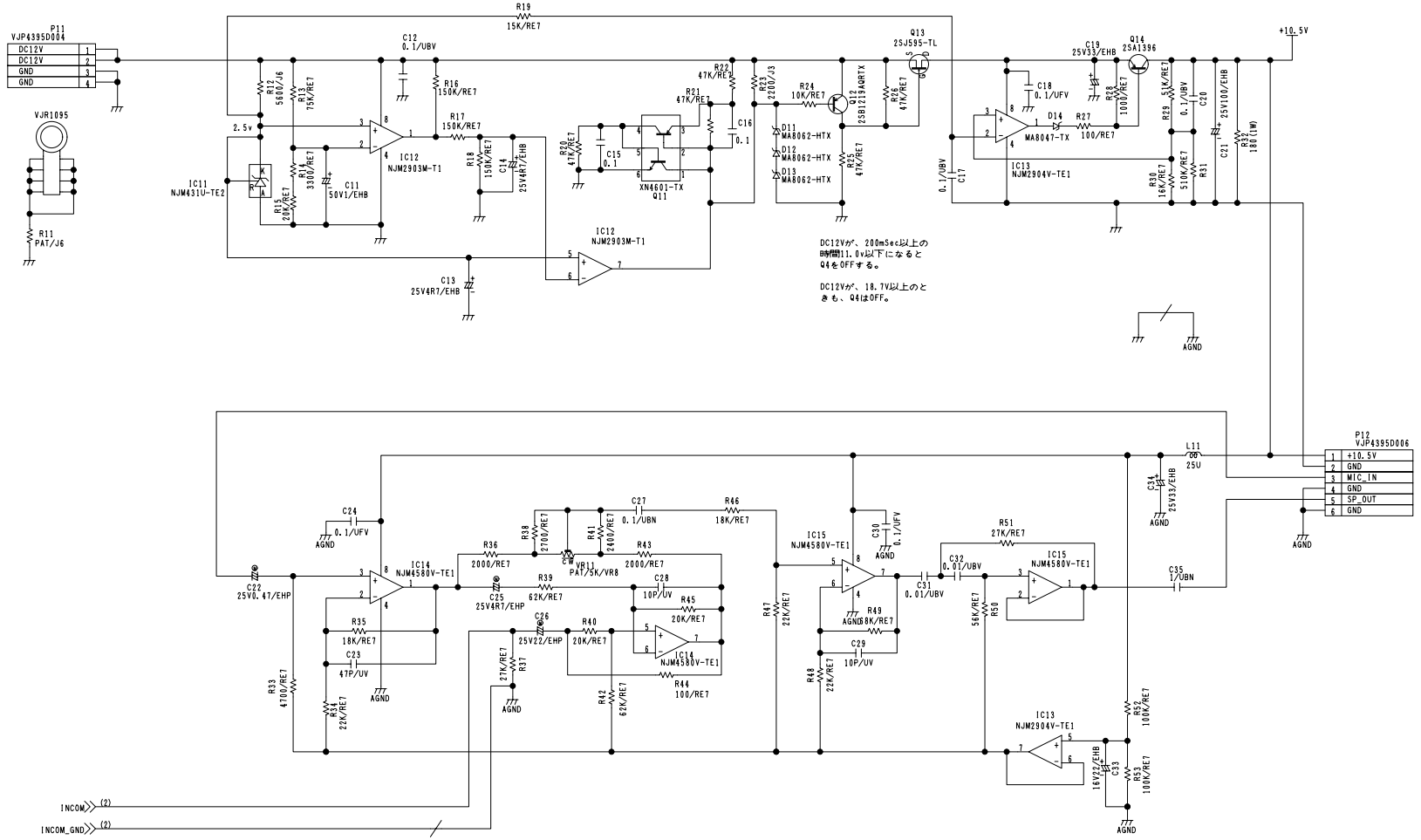
DF13A-10P-1.25H(51)

P64 VJP4395D010	
RECTALLY	1
GENLOCK IN	2
GENLOCK GND	3
RET Y	4
RET Y GND	5
ECU ON	6
TX H	7
TX C	8
RX H	9
RX C	10

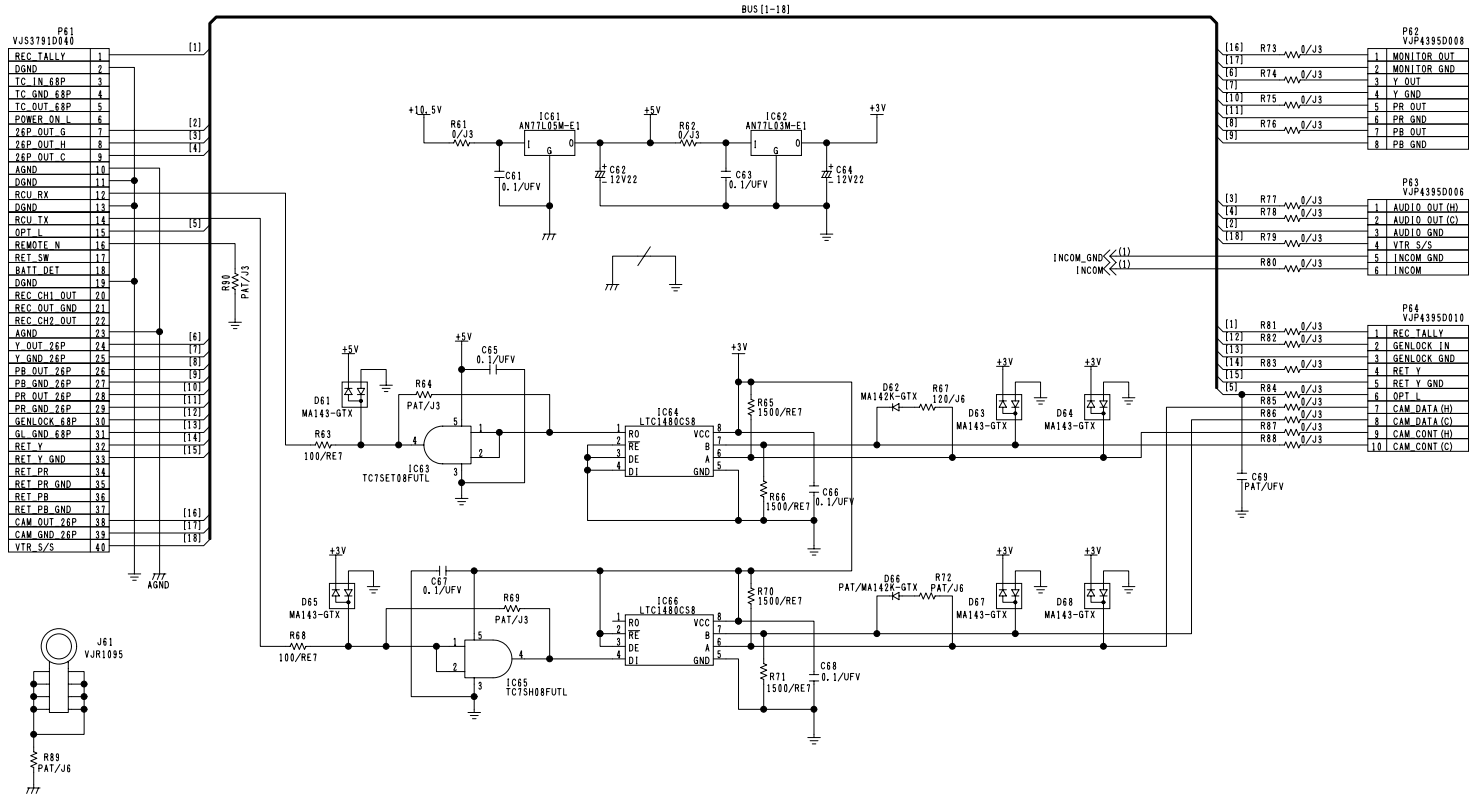
A	DC POWER	
B	GND	
1	MONITOR OUT	
2	MONITOR GND	
3	Y GND	
4	Y OUT	
5	PR OUT	
6	PR GND	
7	PB OUT	
8	PB GND	
9	AUDIO OUT(H)	
10	AUDIO OUT(C)	
11	AUDIO GND	
12	VTR S/S	
13	INCOM GND	
14	INCOM	
15	REC TALLY	
16	GENLOCK IN	
17	GND	
18	RET Y	
19	RET GND	
20	ECU ON	
21	TX H	
22	TX C	
23	RX H	
24	RX C	

K1AA126H0002

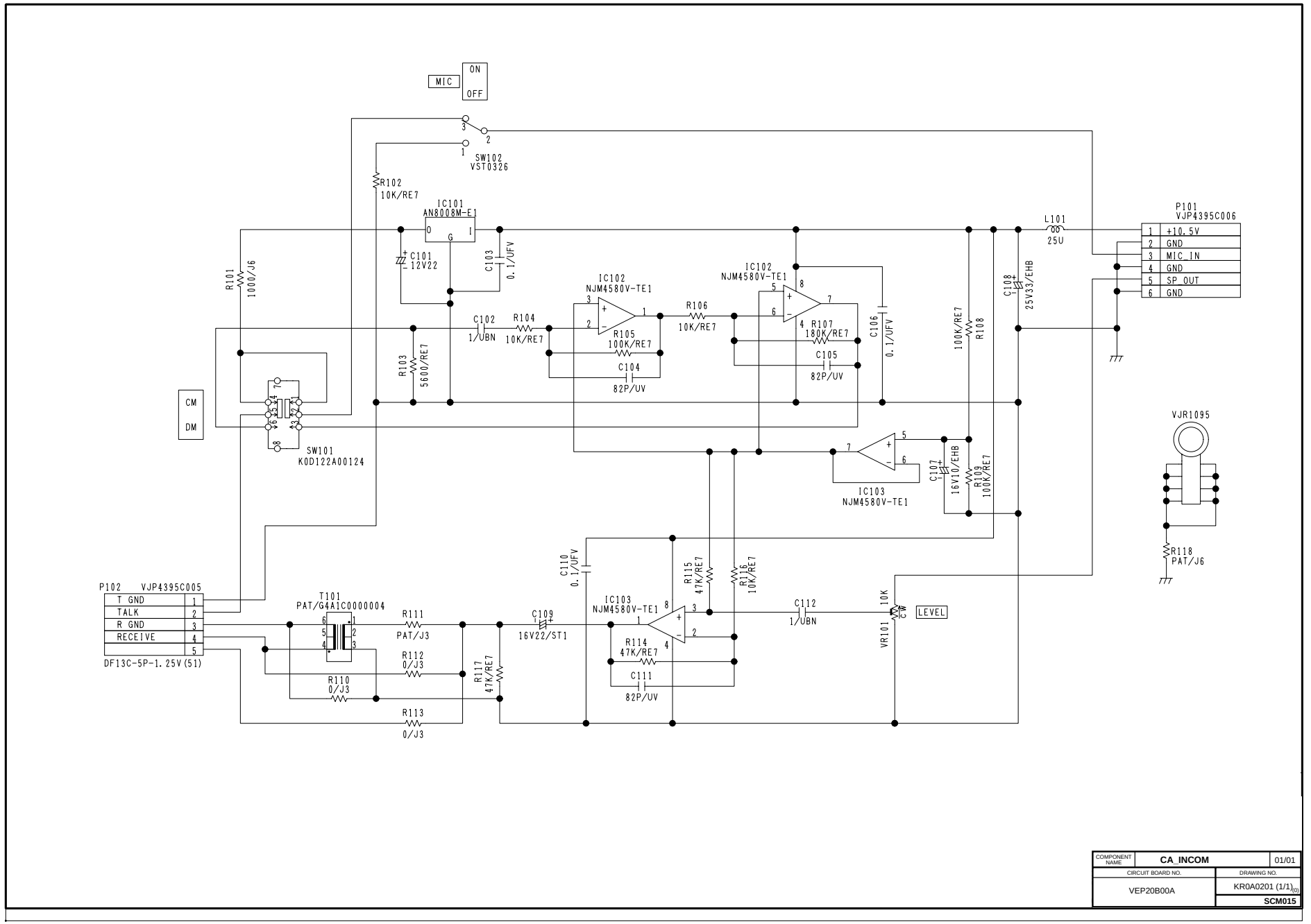
COMPONENT NAME	CA_OVERALL	01/01
CIRCUIT BOARD NO.		DRAWING NO.
		(0)
		SCM012



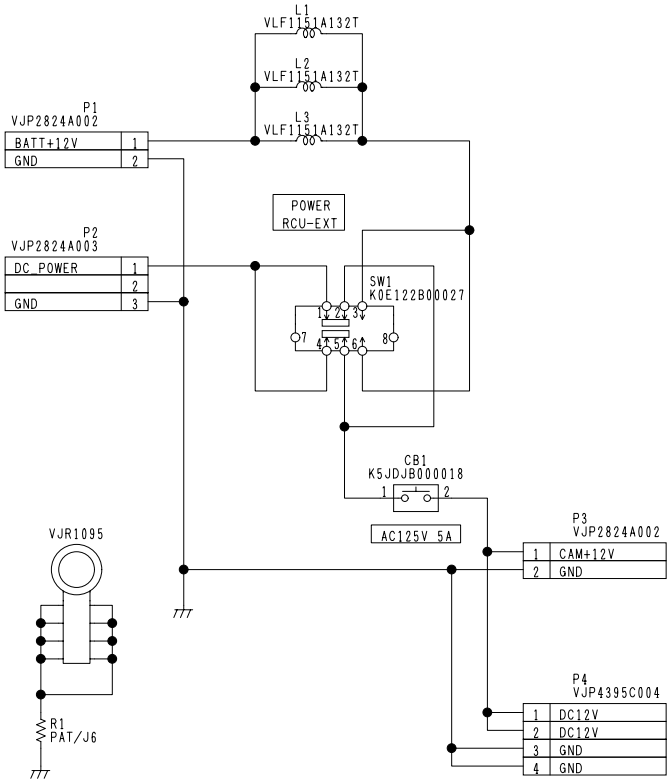
COMPONENT NAME	CA_MAIN	01/02
CIRCUIT BOARD NO.		DRAWING NO.
VEP20A99A		KR0A200 (1/2) (0)
		SCM013



COMPONENT NAME	CA_MAIN	02/02
CIRCUIT BOARD NO.		DRAWING NO.
VEP20A99A		KR0A0200 (2/2)$_{(0)}$
		SCM014

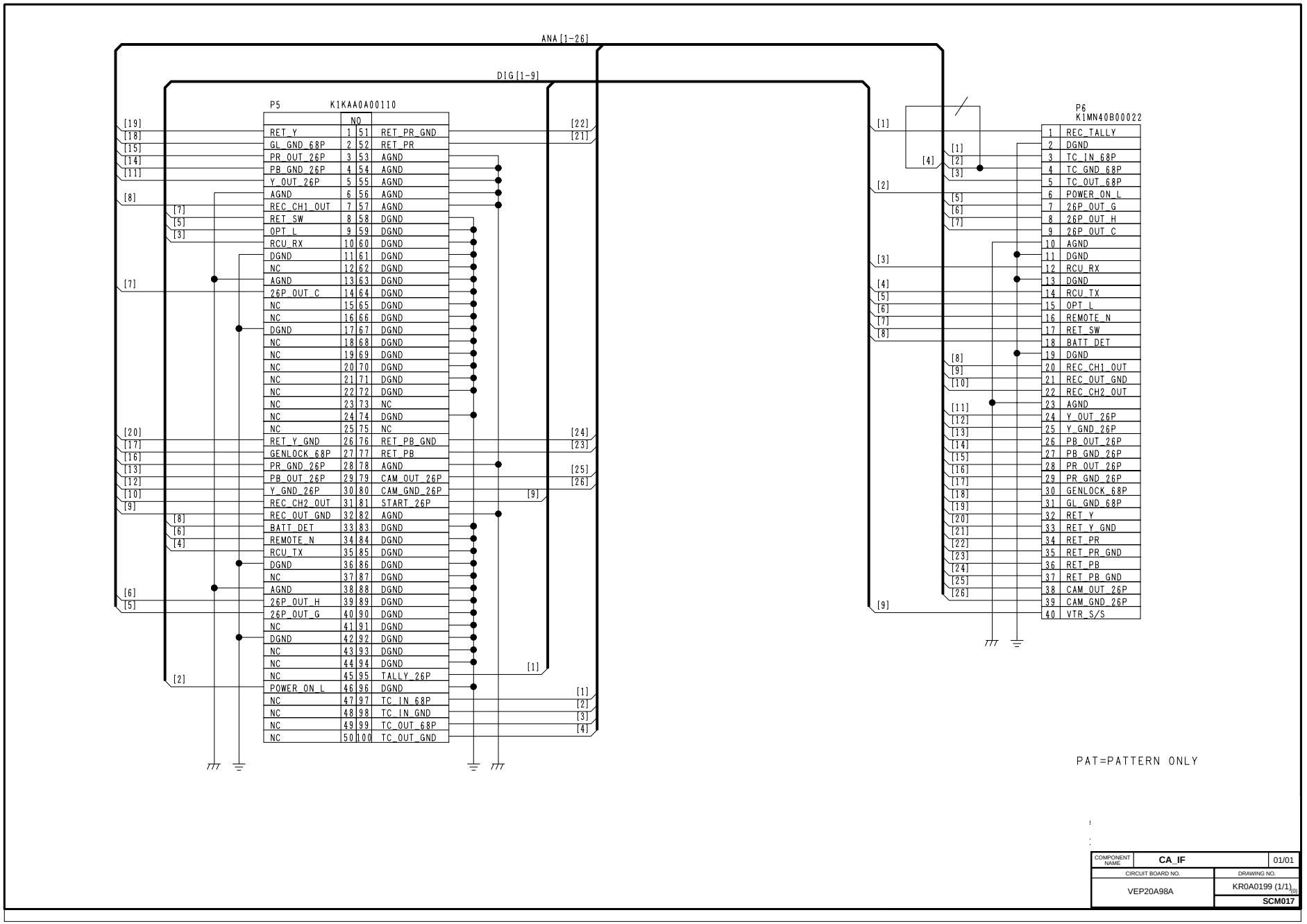


COMPONENT NAME	CA_INCOM	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP20B00A		KR0A0201 (1/1)(0)
		SCM015



AT=PATTERN ONLY

COMPONENT NAME	CA_POWER	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP20B01A		KR0A0202 (1/1)(0)
		SCM016



COMPONENT NAME	CA_IF	01/01
CIRCUIT BOARD NO.		DRAWING NO.
VEP20A98A		KR0A0199 (1/1)(00)
		SCM017